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1312	separation ring formation regulator EzrA
1320	hydrolase, haloacid dehalogenase-like family (gph)
1340	sensor histidine kinase (vncS)
1348	transmembrane protein Vexp3 (vex3)
1352	ABC transporter, ATP-binding protein (vex2)
1358	transmembrane protein Vexp1 (vex1)
1366	transposase
1374	integrase, phage family
1390	holin 2
1398	minor structural protein
1400	host specificity protein
1404	minor structural protein
1406	PblA
1486	homeobox protein drg11
1488	reverse transcriptase
1496	p22 erf-like protein
1498	gp157
1500	tropomyosin 2
1512	gp49 homologous
1526	transcriptional regulator-related protein
1566	chorismate mutase
1572	PTS system component
1576	PTS system, IIB component
1580	PTS system IIA component
1584	lactose phosphotransferase system repressor (lacR)
1594	adhesion lipoprotein (lmb)
1602	GTP pyrophosphokinase (relA)
1606	2',3'-cyclic-nucleotide 2'-phosphodiesterase (cpdB)
1616	iron ABC transporter, iron-binding protein
1620	DNA-binding response regulator
1630	PTS system component
1634	PTS system component (manM)
1638	PTS system component (manL)
1642	PTS system component
1658	response regulator BlpR (blpR)
1676	phosphate transport system regulatory protein PhoU
1680	phosphate ABC transporter, ATP-binding protein (pstB)
1684	phosphate ABC transporter, permease protein (pstA)
1690	phosphate ABC transporter, permease protein (pstC)
1694	probable hemolysin precursor
1704	ribosomal protein L11 methyltransferase (prmA)
1710	transcriptional regulator, MerR family (skgA)
1714	acetyltransferase, GNAT family
1716	MutT/nudix family protein
1722	spermidine N1-acetyltransferase
1726	ATPase, AAA family
1736	ABC transporter domain protein
1738	Helix-turn-helix domain protein
1748	integrase, phage family
1756	Helix-turn-helix domain protein
1762	bacteriophage L54a, integrase
1768	LPXTG-motif cell wall anchor domain protein
1776	membrane protein
1778	conjugal transfer protein
1780	IS1381, transposase OrfA/OrfB, truncation
1802	transcriptional regulator (rstR-1)
1806	transcriptional regulator
1808	FtsK/SpoIIIE family protein
1814	aggregation substance

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1818	mercuric reductase
1822	transcriptional regulator, MerR family
1824	Mn <sup>2+</sup> /Fe <sup>2+</sup> transporter, NRAMP family
1830	ABC transporter, ATP-binding protein (epiF)
1848	Helix-turn-helix domain protein
1850	type 2 phosphatidic acid phosphatase(PAP2), family
1858	Abortive infection protein family
1868	aminotransferase, class-V
1874	glutathione reductase (gor)
1882	chorismate synthase (aroC)
1886	3-dehydroquinate synthase (aroB)
1900	sulfatase family protein
1914	ABC transporter, ATP-binding protein
1920	smf protein (Smffamily)
1924	transferrin receptor
1928	iron compound ABC transporter, ATP-binding protein
1932	iron compound ABC transporter, permease protein
1942	acetyltransferase, CysE/LacA/LpxA/NodL family
1952	GTP-binding protein
1958	carbon starvation protein A
1960	response regulator (lytR)
1962	GAF domain protein (lytS)
2000	extracellular protein
2004	diarrheal toxin (yukA)
2024	carbamoyl-phosphate synthase, large subunit (carB)
2028	carbamoyl-phosphate synthase, small subunit (carA)
2032	aspartate carbamoyltransferase (pyrB)
2036	dihydroorotase, multifunctional complex type (pyrC)
2040	orotate phosphoribosyltransferase (pyrE)
2048	membrane protein
2062	phosphate ABC transporter, permease protein (pstA-2)
2064	phosphate ABC transporter, ATP-binding protein (pstB)
2070	phosphate transport system regulatory protein PhoU
2072	aminopeptidase N (pepN)
2076	DNA-binding response regulator (arlR)
2080	sensor histidine kinase (arlS)
2088	signal recognition particle protein (ffh)
2102	peptide ABC transporter, peptide-binding protein
2104	integrase/recombinase, phage integrase family
2108	sensor histidine kinase
2112	DNA-binding response regulator (vicR)
2118	ABC transporter, ATP-binding protein
2122	nisin-resistance protein
2130	lipoprotein
2136	gid protein (gid)
2140	transcriptional regulator, GntR family
2142	GMP synthase (guaA)
2152	branched-chain amino acid ABC transporter, permease protein (livM)
2154	branched-chain amino acid ABC transporter, ATP-binding protein (livG)
2156	branched-chain amino acid ABC transporter, ATP-binding protein (livF)
2160	acetoin utilization protein AcuB
2174	DNA polymerase III, delta prime subunit (holB)
2186	copper homeostasis protein (cutC)
2190	phosphoserine aminotransferase (serC)
2202	methyalted-DNA--protein-cysteine S-methyltransferase (ogt)
2208	exodeoxyribonuclease III (xth)
2214	PTS system, IIC component
2224	tellurite resistance protein TehB (tehB)
2246	icaA protein

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2250	acetyltransferase, GNAT family
2258	oxidoreductase, short chain dehydrogenase/reductase family (fabG)
2266	oxidoreductase, Gfo/Idh/MocA family family
2268	glyoxalase family protein
2272	UDP-N-acetylglucosamine pyrophosphorylase (glmU)
2276	MutT/nudix family protein
2284	5-methylthioadenosine/S-adenosylhomocysteine nucleosidase (mtf)
2296	phosphatidate cytidyltransferase (cdsA)
2300	membrane-associated zinc metalloprotease
2308	autolysin (flgJ)
2312	DNA polymerase III, alpha subunit, Gram-positive type
2320	nitroreductase family protein superfamily
2326	4-hydroxy-2-oxoglutarate aldolase/2-dehydro-3-deoxyphosphogluconate aldolase
2328	carbohydrate kinase, PfkB family
2336	oxidoreductase, short chain dehydrogenase/reductase family (fabG)
2338	PTS system, IIA component (manL)
2342	glucuronyl hydrolase
2346	PTS system, IIB component (manL)
2350	PTS system, IIC component (manM)
2364	sugar binding transcriptional regulator RegR (regR)
2368	polypeptide deformylase (def)
2380	oxidoreductase, Gfo/Idh/MocA family
2382	endopeptidase O (pepO)
2394	Na <sup>+</sup> /H <sup>+</sup> antiporter
2404	transcriptional regulator
2410	replication initiation protein RepRC
2412	bacteriophage L54a, antirepressor
2416	e11
2422	replicative DNA helicase (dnaB)
2432	GTP-binding protein
2440	arpR protein
2444	gene 17 protein
2458	integrase/recombinase, phage integrase family
2468	bacteriophage L54a, phage D3 terminase
2472	protease
2500	PblB
2504	sensor histidine kinase
2514	N-acetylmuramoyl-L-alanine amidase
2518	KH domain protein
2522	ribosomal protein S16 (rpsP)
2526	permease
2528	ABC transporter, ATP-binding protein
2538	carbamoyl-phosphate synthase, large subunit
2540	carbamoyl-phosphate synthase, small subunit (carA)
2550	transcriptional regulator, LysR family
2554	ribosomal protein L27 (rpmA)
2562	ribosomal protein L21 (rplU)
2572	glycerophosphoryl diester phosphodiesterase
2582	nitroreductase family protein
2586	dipeptidase (pepV)
2614	GTP-binding protein HflX (hflX)
2618	galactose-1-phosphate uridylyltransferase (galT)
2626	oxidoreductase, short chain dehydrogenase/reductase family
2630	single-stranded-DNA-specific exonuclease RecJ (recJ)
2638	adenine phosphoribosyltransferase (apt)
2646	Bcl-2 family protein
2654	oxidoreductase, DadA family protein
2658	glucose-1-phosphate thymidyltransferase (rfbA)
2664	dTDP-4-dehydrorhamnose 3,5-epimerase (rfbC)

2682	hyaluronidase
2686	mutator MutT protein (mutX)
2690	MutT/nudix family protein
2694	membrane protein
2702	acetolactate synthase (ilvK)
2706	adherence and virulence protein A (pavA)
2714	ABC transporter, permease protein (rbsC)
2722	metallo-beta-lactamase superfamily protein
2734	ribose 5-phosphate isomerase (rpiA)
2738	phosphopentomutase (deoB)
2742	purine nucleoside phosphorylase, family 2 (deoD)
2750	purine nucleoside phosphorylase (deoD)
2762	capsular polysaccharide biosynthesis protein Cps4A (cps4A)
2768	cpsb protein
2770	cpsc protein
2772	CpsE
2774	CpsF
2776	CpsVG
2778	CpsVH
2780	CpsVM
2782	CpsVN
2784	glycosyl transferase domain protein
2786	glycosyl transferase, family 2/glycosyl transferase family 8
2790	CpsVK
2794	CpsL
2796	neuB protein
2798	UDP-N-acetylglucosamine 2-epimerase
2800	hexapeptide transferase family protein
2802	NeuA
2808	uracil-DNA glycosylase (ung)
2818	DNA topoisomerase IV, B subunit (parE)
2822	DNA topoisomerase IV, A subunit (parC)
2826	branched-chain amino acid aminotransferase (ilvE)
2842	glycerol kinase (glpK)
2848	aerobic glycerol-3-phosphate dehydrogenase (glpD)
2874	ABC transporter, ATP-binding protein
2882	PTS system component (bglP)
2886	glutamate 5-kinase (proB)
2890	gamma-glutamyl phosphate reductase (proA)
2898	cell division protein FtsL (ftsL)
2904	penicillin-binding protein 2X (pbpX)
2910	phospho-N-acetylmuramoyl-pentapeptide-transferase (mraY)
2914	ATP-dependent RNA helicase, DEAD/DEAH box family (deaD)
2918	ABC transporter, substrate-binding protein
2924	amino acid ABC transporter, permease protein
2928	amino acid ABC transporter, ATP-binding protein
2932	thioredoxin reductase (trxB)
2940	NAD <sup>+</sup> synthetase (nadE)
2944	aminopeptidase C (pepC)
2952	recombination protein U (recU)
2966	Uncharacterized protein family UPF0020 family
2974	autoinducer-2 production protein LuxS (luxS)
2978	KH domain protein
2986	ABC transporter, ATP-binding protein
2994	DNA-binding response regulator (vraR)
3000	guanylate kinase (gmK)
3004	DNA-directed RNA polymerase, omega subunit
3008	primosomal protein N (priA)
3012	methionyl-tRNA formyltransferase (fmt)



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3016	Sun protein (sun)
3020	protein phosphatase 2C
3032	sensor histidine kinase
3034	DNA-binding response regulator (vraR)
3036	cof family protein/peptidyl-prolyl cis-trans isomerase, cyclophilin typ
3040	S1 RNA binding domain protein (rpsA)
3044	pyruvate formate-lyase-activating enzyme
3062	PTS system, IIB component (celA)
3066	PTS system, cellobiose-specific IIC component (celB)
3068	formate acetyltransferase (pfl)
3072	transaldolase
3080	cysteine synthase A (cysK)
3088	comF operon protein 1 (comFA)
3092	competence protein ComF
3096	ribosomal subunit interface protein (yfiA)
3104	tryptophanyl-tRNA synthetase (trpS)
3108	carbamate kinase (arcC)
3116	ornithine carbamoyltransferase (argF)
3124	arginine deiminase (arcA)
3134	transcriptional regulator, Crp/Fnr family
3138	inosine-5'-monophosphate dehydrogenase (guaB)
3140	MutR
3142	transporter
3146	recF protein (recF)
3158	peptidase, M16 family
3166	ABC transporter, ATP-binding protein
3170	ABC transporter, ATP-binding protein
3178	LysM domain protein (lytN)
3180	immunodominant antigen A (isaA)
3184	L-serine dehydratase, iron-sulfur-dependent, alpha subunit (sdhA)
3188	L-serine dehydratase, iron-sulfur-dependent, beta subunit (sdhB)
3202	DHH subfamily 1 protein
3206	ribosomal protein L9 (rplI)
3210	replicative DNA helicase (dnaB)
3216	ribosomal protein S4 (rpsD)
3224	transcriptional regulator, TetR family
3236	membrane protein
3238	choline transporter (proWX)
3240	glycine betaine/L-proline transport ATP binding subunit (proV)
3242	DNA-binding response regulator
3244	Histidine kinase-, DNA gyrase B-, phytochrome-like ATPase family
3246	ornithine carbamoyltransferase (argF)
3248	carbamate kinase (arcC)
3252	membrane protein
3256	sensory box histidine kinase VicK
3258	DNA-binding response regulator
3268	Helix-turn-helix domain protein
3278	integrase
3284	ribosomal protein L33 (rpmG)
3288	ribosomal protein L32 (rpmF)
3300	YitT family protein
3304	YitT family protein
3320	DNA mismatch repair protein MutS (mutS)
3324	cold-shock domain family protein-related protein
3336	drug transporter
3340	Holliday junction DNA helicase RuvA (ruvA)
3352	recA protein (recA)
3386	oxidoreductase, Gfo/Idh/MocA family
3390	acetyltransferase, GNAT family

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3394	anaerobic ribonucleoside-triphosphate reductase activating protein (nrd)
3412	ABC transporter, permease protein (rbsC)
3414	ABC transporter, ATP-binding protein (nrtC)
3416	PTS system, mannose-specific IIAB components (manL)
3420	Cof family protein
3432	xanthine/uracil permease family protein
3440	acetyltransferase, GNAT family
3442	transcriptional regulator (cps4A)
3448	HIT family protein (hit)
3460	ABC transporter, permease protein
3472	Uncharacterized BCR, YhbC family COG0779 superfamily
3484	ribosomal protein L7A family
3496	esterase
3500	transcriptional repressor, CopY (copY)
3504	cation-transporting ATPase, E1-E2 family
3508	cation-binding protein-related protein
3520	DNA polymerase I (polA)
3534	DNA-binding response regulator (saeR)
3536	sensor histidine kinase (saeS)
3562	drug resistance transporter, EmrB/QacA subfamily
3566	peptidase M24 family protein
3570	peptidase M24 family protein (pepQ)
3572	cytidine/deoxycytidylate deaminase family protein
3584	translation elongation factor P (efp)
3592	N utilization substance protein B (nusB)
3596	sugar-binding transcriptional regulator, LacI family (scrR)
3600	sucrose-6-phosphate dehydrogenase (scrB)
3606	PTS system IIABC components (scrA)
3610	fructokinase (scrK)
3614	mannose-6-phosphate isomerase, class I (manA)
3622	phospho-2-dehydro-3-deoxyheptonate aldolase (aroH)
3626	holo-(acyl-carrier-protein) synthase (acpS)
3630	alanine racemase (alr)
3634	autolysin (usp45)
3636	ATP-dependent DNA helicase RecG (recG)
3642	shikimate 5-dehydrogenase (aroE)
3652	Cof family protein
3668	ferredoxin-related protein
3676	peptidase t (pepT)
3684	UDP-N-acetylmuramoylalanyl-D-glutamate--2,6-diaminopimelate ligase (mur)
3692	iron compound ABC transporter, substrate-binding protein
3698	FecCD transport family protein (sirB)
3704	iron compound ABC transporter, permease protein (sirB)
3710	inorganic pyrophosphatase, manganese-dependent (ppaC)
3714	pyruvate formate-lyase-activating enzyme (pflA)
3718	CBS domain protein
3730	acid phosphatase
3736	LPXTG-motif cell wall anchor domain protein
3738	LPXTG-site transpeptidase family protein
3742	LPXTG-site transpeptidase family protein
3744	cell wall surface anchor family protein
3746	cell wall surface anchor family protein
3752	glycosyl transferase, group 1 family protein domain protein
3754	EpsQ protein
3756	polysaccharide extrusion protein
3768	dTDP-glucose 4-6-dehydratase
3782	glycosyl transferase domain protein
3788	dTDP-4-dehydrorhamnose reductase (rfbD)
3796	RNA polymerase sigma-70 factor (rpoD)

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3802	DNA primase (dnaG)
3816	ABC transporter, ATP-binding protein Vexp2 (vex2)
3818	permease
3820	transmembrane protein Vexp3
3822	transmembrane protein Vexp3
3832	endopeptidase O (pepO)
3834	endopeptidase O (pepO)
3840	serine protease, subtilase family
3842	exotoxin 2
3844	CylK
3854	glycine cleavage system T protein
3856	CylE
3858	ABC transporter homolog CylB
3862	acyl carrier protein homolog AcpC (acpP)
3864	3-oxoacyl-(acyl-carrier-protein) reductase (fabG)
3868	CylD
3876	membrane protein
3912	LPXTG-site transpeptidase family protein
3916	LPXTG-site transpeptidase family protein
3918	LPXTG-site transpeptidase family protein
3920	LPXTG-motif cell wall anchor domain protein
3928	chaperonin, 33 kDa (hslO)
3932	Tn5252, Orf 10 protein
3934	transposase OrfAB, subunit B
3948	psr protein
3952	shikimate kinase (aroK)
3964	enolase (eno)
3972	MutT/nudix family protein
3976	glycosyl transferase, group 1
3978	preprotein translocase, SecA subunit (secA)
3986	preprotein translocase SecY family protein
3990	glycosyl transferase, family 8
3992	glycosyl transferase, family 2
3998	glycosyl transferase, family 8
4000	glycosyl transferase, family 2/glycosyl transferase family 8
4002	glycosyl transferase, family 8
4012	LPXTG-motif cell wall anchor domain protein (clfB)
4016	transcriptional regulator
4018	excinuclease ABC, B subunit (uvrB)
4022	Abortive infection protein family
4024	amino acid ABC transporter, amino acid-binding protein/permease protein
4026	amino acid ABC transporter, ATP-binding protein
4034	GTP-binding protein, GTP1/Obg family (obg)
4042	aminopeptidase PepS (pepS)
4050	ribosomal small subunit pseudouridine synthase A (rsuA)
4060	lactoylglutathione lyase (gloA)
4064	glycosyl transferase family protein
4072	alkylphosphonate utilization operon protein PhnA (phnA)
4078	glucosamine-fructose-6-phosphate aminotransferase (isomerizing) (glmS)
4090	Phosphofructokinase
4094	DNA polymerase III, alpha subunit (dnaE)
4098	transcriptional regulator, GntR family
4102	ABC transporter, ATP-binding protein
4106	ABC transporter, ATP-binding protein
4116	FtsK/SpoIIIE family protein
4122	Helix-turn-helix domain protein
4152	Helix-turn-helix domain protein
4158	excisionase
4160	transposase

4166	chloramphenicol acetyltransferase (cat)
4174	PilB-related protein
4178	acetyltransferase
4182	Leucine Rich Repeat domain protein
4190	nucleoside diphosphate kinase (ndk)
4206	Protein of unknown function superfamily
4218	hydrolase, haloacid dehalogenase-like family (pho2)
4226	oxygen-independent coproporphyrinogen III oxidase
4236	phosphoglucomutase/phosphomannomutase family protein (femD)
4240	Gram-positive signal peptide, YSIRK family domain protein
4256	cobyric acid synthase (cobQ)
4260	lipoate-protein ligase A (lplA)
4264	branched-chain alpha-keto acid dehydrogenase E3 component, lipoamide de
4266	pyruvate dehydrogenase complex, E2 component, dihydrolipoamide acetyltr
4270	pyruvate dehydrogenase complex, E1 component, pyruvate dehydrogenase be
4286	magnesium transporter, CorA family
4294	exonuclease RxB (rxB)
4302	phenylalanyl-tRNA synthetase, beta subunit (pheT)
4324	ATP synthase F1, epsilon subunit (atpC)
4328	ATP synthase F1, beta subunit (atpD)
4332	ATP synthase F1, gamma subunit (atpG)
4338	ATP synthase F1, alpha subunit (atpA)
4342	ATP synthase F1, delta subunit (atpH)
4346	ATP synthase F0, B subunit (atpF)
4350	ATP synthase, F0 subunit A (atpB)
4354	proton-translocating ATPase, c subunit-related protein
4360	glycogen synthase (glgA)
4362	glycogen biosynthesis protein GlgD (glgD)
4366	1,4-alpha-glucan branching enzyme (glgB)
4368	pullulanase
4382	ribonuclease BN
4396	acetyltransferase, GNAT family
4398	UDP-N-acetylglucosamine 1-carboxyvinyltransferase (murA)
4402	thiamine-phosphate pyrophosphorylase (thiE)
4406	phosphomethylpyrimidine kinase (thiD)
4410	transcriptional regulator, Deg family (tenA)
4414	ABC transporter, ATP-binding protein
4426	S-adenosylmethionine synthetase (metK)
4440	DNA polymerase III, gamma and tau subunits (dnaX)
4444	GAF domain protein
4448	uridine kinase (udk)
4452	ATP-dependent RNA helicase, DEAD/DEAH box family
4458	peptidoglycan GlcNAc deacetylase (pgdA)
4462	glyceraldehyde-3-phosphate dehydrogenase, NADP-dependent (gapN)
4466	phosphoenolpyruvate-protein phosphotransferase (ptsI)
4470	phosphocarrier protein hpr
4474	NrdH-redoxin-related protein
4478	ribonucleoside-diphosphate reductase 2, alpha subunit (nrdE)
4498	glycosyl transferase, family 8
4504	alanyl-tRNA synthetase (alaS)
4512	alkyl hydroperoxide reductase, subunit F (ahpF)
4516	alkyl hydroperoxide reductase, subunit C (ahpC)
4520	ribosomal protein S2 (rpsB)
4524	translation elongation factor Ts (tsf)
4532	transcriptional regulator CtsR (ctsR)
4536	ATP-dependent Clp protease, ATP-binding subunit (clpC)
4540	deoxynucleoside kinase
4544	NifR3/Smm1 family protein
4548	chaperonin, 33 kDa (hslO)

4558	glutamate-cysteine ligase (gshA)
4562	Helix-turn-helix domain, fis-type protein
4566	perfringolysin O regulator protein (pfoR)
4570	adenylosuccinate synthetase (purA)
4578	SgaT protein (sgaT)
4582	PTS system, IIB component (sgaT)
4586	PTS system, IIA component (mtlA)
4590	hexulose-6-phosphate synthase
4594	hexulose-6-phosphate isomerase
4598	L-ribulose-5-phosphate 4-epimerase (araD)
4606	sugar binding transcriptional regulator RegR
4610	D-isomer specific 2-hydroxyacid dehydrogenase family protein (serA)
4622	transcriptional regulator, BglG family
4632	glycine betaine/L-proline transport ATP binding subunit (proV)
4636	amino acid ABC transporter, permease protein
4644	Na <sup>+</sup> /H <sup>+</sup> exchanger family protein (kefB)
4648	glyoxylase family protein
4652	LPXTG-site transpeptidase family protein
4656	DNA gyrase, A subunit (gyrA)
4660	L-lactate dehydrogenase (ldh)
4664	NADH oxidase (nox)
4680	lipoprotein (bmpD)
4690	pantothenate kinase (coaA)
4694	ribosomal protein S20 (rpsT)
4698	amino acid ABC transporter, amino acid-binding protein (aatB)
4702	amino acid ABC transporter, ATP-binding protein
4726	ribosomal large subunit pseudouridine synthase B (rluB)
4734	Uncharacterized ACR, COG1354
4738	integrase/recombinase, phage integrase family (xerD)
4742	CBS domain protein
4746	phosphoesterase
4750	HAM1 protein
4768	transcriptional regulator, biotin repressor family
4792	amino acid ABC transporter, permease protein
4796	amino acid ABC transporter, substrate-binding protein
4798	6-aminohexanoate-cyclic-dimer hydrolase
4800	transcription elongation factor GreA (greA)
4804	Uncharacterized BCR, YceG family COG1559
4812	UDP-N-acetylmuramate-alanine ligase (murC)
4822	Snf2 family protein
4828	GTP-binding protein (b2511)
4832	primosomal protein Dnal (dnal)
4844	sensor histidine kinase (arlS)
4846	DNA-binding response regulator (arlR)
4852	heat shock protein HtpX (htpX)
4870	potassium uptake protein, Trk family
4874	ABC transporter, ATP-binding protein
4888	phosphoglycerate kinase (pgk)
4896	transcriptional regulator, MerR family
4900	glutamine synthetase, type I (glnA)
4904	secreted 45 kd protein (usp45)
4908	metallo-beta-lactamase superfamily protein
4916	glycoprotease family protein
4926	glycoprotease family protein (gcp)
4938	ribosomal protein S14p/S29e (rpsN)
4952	exonuclease (dnaQ)
4956	transcriptional regulator, merR family
4958	cyclopropane-fatty-acyl-phospholipid synthase (cfa)
4970	1,4-dihydroxy-2-naphthoate octaprenyltransferase (menA)



4972	pyridine nucleotide-disulphide oxidoreductase (ndh)
4974	cytochrome d oxidase, subunit I (cydA)
4976	cytochrome d ubiquinol oxidase, subunit II (cydB)
4980	transport ATP-binding protein CydD
4988	polyprenyl synthetase (ispB)
4990	X-pro dipeptidyl-peptidase (pepX)
4998	drug transporter
5002	universal stress protein family
5004	glycerol uptake facilitator protein (glpF)
5012	cppA protein (cppA)
5034	exodeoxyribonuclease V, alpha subunit (recD)
5038	Signal peptidase I
5042	ribonuclease HIII (rnhC)
5062	transcriptional regulator
5068	maltose ABC transporter, permease protein (malD)
5072	maltose ABC transporter, permease protein (malC)
5088	ABC transporter, ATP-binding protein
5092	ABC transporter, permease protein
5106	spspoJ protein (spo0J)
5114	DNA polymerase III, beta subunit (dnaN)
5118	Diacylglycerol kinase catalytic domain (presumed) protein
5138	transcription-repair coupling factor (mfd)
5142	S4 domain protein
5156	MesJ/Ycf62 family protein
5160	hypoxanthine phosphoribosyltransferase (hpt)
5164	cell division protein FtsH (ftsH)
5172	hydrolase, haloacid dehalogenase-like family (b2690)
5178	transcriptional regulator, MarR family
5182	3-oxoacyl-(acyl-carrier-protein) synthase III (fabH)
5190	enoyl-(acyl-carrier-protein) reductase (fabK)
5194	malonyl CoA-acyl carrier protein transacylase (fabD)
5198	3-oxoacyl-[acyl-carrier protein] reductase (fabG)
5200	3-oxoacyl-(acyl-carrier-protein) synthase II (fabF)
5202	acetyl-CoA carboxylase, biotin carboxyl carrier protein (accB)
5206	(3R)-hydroxymyristoyl-(acyl-carrier-protein) dehydratase (fabZ)
5210	acetyl-CoA carboxylase, biotin carboxylase (accC)
5214	acetyl-CoA carboxylase, carboxyl transferase, beta subunit (accD)
5218	acetyl-CoA carboxylase, carboxyl transferase, alpha subunit (accA)
5224	seryl-tRNA synthetase (serS)
5234	PTS system, mannose-specific IID component
5246	ribosomal large subunit pseudouridine synthase, RluD subfamily (rluD)
5254	GTP pyrophosphokinase (relA)
5266	ribose-phosphate pyrophosphokinase (prsA)
5270	aminotransferase, class-V
5274	DNA-binding protein
5282	Domain of unknown function
5290	platelet activating factor
5296	transcriptional regulator, AraC family
5302	voltage-gated chloride channel family protein
5318	spermidine/putrescine ABC transporter, ATP-binding protein (potA)
5320	UDP-N-acetylenolpyruvoylglucosamine reductase (murB)
5324	bifunctional folate synthesis protein (folK)
5328	dihydroneopterin aldolase (folB)
5332	dihydropteroate synthase (folP)
5336	GTP cyclohydrolase I (folE)
5344	rarD protein (rarD)
5348	homoserine kinase (thrB)
5354	Polysaccharide deacetylase family (icaB)
5362	osmoprotectant transporter, BCCT family (opuD)



5384	thiol peroxidase (psaD)
5388	hydrolase
5390	transcriptional regulator, GntR family
5402	gis24 protein
5424	uncharacterized domain 1
5440	cation efflux family protein
5454	dihydroorotate dehydrogenase A (pyrDa)
5458	beta-lactam resistance factor (fibB)
5462	beta-lactam resistance factor (fibA)
5474	HD domain protein
5482	cation-transporting ATPase, E1-E2 family
5486	fructose-1,6-bisphosphatase (fbp)
5488	iron-sulfur cluster-binding protein
5492	peptide chain release factor 2 (prfB)
5496	cell division ABC transporter, ATP-binding protein FtsE (ftsE)
5504	carboxymethylenebutenolide-related protein
5506	metallo-beta-lactamase superfamily protein
5514	DNA polymerase III, epsilon subunit/ATP-dependent helicase DinG
5520	asparaginyl-tRNA synthetase (asnS)
5526	inosine-uridine preferring nucleoside hydrolase (iunH)
5528	general stress protein 170
5534	Uncharacterised protein family superfamily
5538	Uncharacterized BCR, COG1481
5546	zinc ABC transporter, zinc-binding adhesion liprotein (adcA)
5560	isochorismatase family protein (entB)
5566	3-hydroxybutyryl-CoA dehydrogenase
5572	pyruvate phosphate dikinase (ppdK)
5574	glutamyl-tRNA(Gln) amidotransferase, C subunit (gatC)
5580	glutamyl-tRNA(Gln) amidotransferase, A subunit (gatA)
5594	GTP-binding protein
5612	iojap-related protein
5626	transcriptional regulator SkgA (skgA)
5630	glycerol uptake facilitator protein (glpF)
5634	dihydroxyacetone kinase family protein
5638	dihydroxyacetone kinase family protein
5640	transcriptional regulator, tetR family
5646	dihydroxyacetone kinase family protein
5654	glutamine amidotransferase, class I
5666	peptidase, M20/M25/M40 family
5668	ABC transporter, ATP-binding protein
5686	pur operon repressor (purR)
5690	cmp-binding-factor 1 (cbf1)
5694	competence-induced protein Ccs50 (ccs50)
5702	ribulose-phosphate 3-epimerase (rpe)
5710	rRNA (guanine-N1-)-methyltransferase (rrmA)
5712	dimethyladenosine transferase (ksgA)
5718	primase-related protein
5726	endosome-associated protein
5728	CG17785 gene product
5734	dltD protein (dltD)
5738	D-alanyl carrier protein-related protein
5742	dltB protein (dltB)
5754	DNA-binding response regulator (arlR)
5756	ribosomal protein L34 (rpmH)
5766	penicillin-binding protein 4 (pbp4)
5770	intein-containing protein
5774	NifU family protein
5778	aminotransferase, class-V
5782	Uncharacterized protein family (UPF0051) family

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5786	ABC transporter, ATP-binding protein
5790	glycosyl transferase domain protein (llm)
5794	transcriptional regulator MecA (mecA)
5798	undecaprenol kinase
5806	amino acid ABC transporter, amino acid-binding protein/permease protein
5808	amino acid ABC transporter, ATP-binding protein
5834	riboflavin biosynthesis protein RibF (ribF)
5850	type I restriction-modification system, S subunit
5860	lipoprotein
5862	aggregation substance
5866	ID479
5896	type II DNA modification methyltransferase Spn5252IP (spn5252IMP)
5916	ribosomal protein L10 (rplJ)
5922	ATP-dependent Clp protease, ATP-binding subunit ClpC (clpC)
5926	homocysteine S-methyltransferase (mmuM)
5932	transcriptional regulator, TetR family
5938	GTP-binding protein (cgpA)
5952	thymidylate synthase (thyA)
5956	condensing enzyme, FabH-related
5960	hydroxymethylglutaryl-CoA reductase, degradative
5974	gene_idK21C13.21~pir  T04769~strong similarity to unknown protein, put
5976	FMN-dependent dehydrogenase family protein
5980	phosphomevalonate kinase
5986	diphosphomevalonate decarboxylase (mvaD)
5990	mevalonate kinase (mvk)
5994	Histidine kinase-, DNA gyrase B-, phytochrome-like ATPase family (PhoR1
6002	GTP pyrophosphokinase (relA)
6006	transposase for insertion sequence element is904
6016	5'-nucleotidase family
6018	polypeptide deformylase (def)
6022	NADP-specific glutamate dehydrogenase (gdhA)
6026	ABC transporter, ATP-binding/permease protein
6028	ABC transporter, ATP-binding/permease protein
6030	acetyltransferase, GNAT family family
6032	ABC transporter, ATP-binding protein
6040	degV family protein (degV)
6056	carbohydrate kinase, PfkB family (fruB)
6064	beta-lactam resistance factor (fibB)
6070	2-dehydropantoate 2-reductase
6076	PTS system component
6078	pyridine nucleotide-disulphide oxidoreductase family protein (trxB)
6082	tRNA (guanine-N1)-methyltransferase (trmD)
6092	c5a peptidase precursor
6100	ParA
6102	transposase family protein (orfA)
6116	Tn5252, relaxase
6120	Tn5252, Orf 10 protein
6124	mercuric reductase
6126	transcriptional regulator, MerR family
6132	cation transport ATPase, E1-E2 family
6138	cation-transporting ATPase, E1-E2 family
6140	cation-transporting ATPase, E1-E2 family
6144	cation-transporting ATPase, E1-E2 family
6146	transcriptional repressor, CopY (copY)
6150	cadmium resistance transporter
6158	membrane protein
6162	flavoprotein (dfr)
6170	lipoate-protein ligase A
6174	FMN oxidoreductase (nema)

6178	Bacterial luciferase superfamily
6182	glycine cleavage system H protein (gcvH)
6186	Domain of unknown function
6194	lipoate-protein ligase A (lplA)
6198	formate-tetrahydrofolate ligase (fhs)
6202	cardiolipin synthetase (cls)
6220	aminotransferase, class II (aspB)
6222	RNA methyltransferase, TrmH family, group 2
6232	60 kda chaperonin
6242	purine nucleoside phosphorylase (deoD)
6248	deoxyribose-phosphate aldolase (deoC)
6254	Lyme disease proteins of unknown function
6258	ribosomal large subunit pseudouridine synthase, RluD subfamily (rluD)
6262	penicillin-binding protein 2A (pbp2A)
6266	pathogenicity protein
6268	transcription antitermination protein NusG (nusG)
6272	glycosyl transferase, family 8
6276	glycosyl transferase, family 8
6284	sugar transporter family protein
6292	sensory box histidine kinase
6306	homocysteine S-methyltransferase (methH)
6310	glycerol dehydrogenase
6312	DNA topology modulation protein FliA
6316	translation initiation factor IF-1 (infA)
6320	adenylate kinase (adk)
6326	ribosomal protein L15 (rplO)
6330	ribosomal protein L30 (rpmD)
6336	ribosomal protein S5 (rpsE)
6344	ribosomal protein L6 (rplF)
6348	ribosomal protein S8 (rpsH)
6352	ribosomal protein S14 (rpsN)
6356	ribosomal protein L5 (rplE)
6360	ribosomal protein L24 (rplX)
6366	ribosomal protein L14 (rplN)
6368	ribosomal protein S17 (rpsQ)
6372	ribosomal protein L29 (rpmC)
6374	ribosomal protein L16 (rplP)
6378	ribosomal protein S3 (rpsC)
6382	ribosomal protein L22 (rplV)
6386	ribosomal protein S19 (rpsS)
6390	ribosomal protein L2 (rplB)
6394	ribosomal protein L23 (rplW)
6398	ribosomal protein L4/L1 family (rplD)
6402	ribosomal protein L3 (rplC)
6408	ribosomal protein S10 (rpsJ)
6414	MATE efflux family protein
6418	threonine synthase (thrC)
6428	Uncharacterized BCR, COG1636 superfamily
6436	4-alpha-glucanotransferase (malQ)
6440	glycogen phosphorylase family protein (malP)
6444	glycerol-3-phosphate transporter (glpT)
6452	rhodanese family protein
6458	ammonium transporter
6464	DNA repair protein RadA (radA)
6472	oxidoreductase, pyridine nucleotide-disulfide, class I
6478	ribose ABC transporter, periplasmic D-ribose-binding protein (rbsB)
6484	ribose ABC transporter, ATP-binding protein (rbsA)
6486	ribose ABC transporter protein (rbsD)
6488	ribokinase (rbsK)

6498	ABC transporter, ATP-binding protein
6502	DNA-binding response regulator (vicR)
6506	argininosuccinate synthase (argG)
6508	argininosuccinate lyase (argH)
6514	bacteriophage L54a, repressor protein
6528	soluble transducer HtrXIII
6542	probable transposase (insertion sequence IS861)
6544	ABC transporter, ATP-binding/permease protein
6550	ABC transporter, ATP-binding/permease protein
6560	Serine hydroxymethyltransferase
6568	HemK protein (hemK)
6572	peptide chain release factor 1 (prfA)
6576	thymidine kinases
6580	4-oxalocrotonate tautomerase (dmpl)
6588	oxidoreductase
6594	oxidoreductase
6600	formate/nitrite transporter family protein
6608	xanthine permease (pbuX)
6612	xanthine phosphoribosyltransferase (xpt)
6616	guanosine monophosphate reductase (guaC)
6620	drug resistance transporter, EmrB/QacA subfamily
6622	oxidoreductase
6624	Kup system potassium uptake protein (kup)
6636	O-methyltransferase
6642	oligoendopeptidase F (pepF)
6646	competence protein CoiA (coiA)
6650	major facilitator superfamily protein superfamily
6652	ribosomal small subunit pseudouridine synthase A (rsuA)
6658	glucosamine-6-phosphate isomerase (nagB)
6662	nodulin-related protein, truncation
6664	S-adenosylmethionine:tRNA ribosyltransferase-isomerase (queA)
6674	permease, GntP family
6684	6-phospho-beta-glucosidase (bglA)
6686	PTS system, beta-glucosides-specific IIABC components
6688	transcription antiterminator LicT (licT)
6704	esterase
6706	sugar-binding transcriptional repressor, LacI family
6708	hydrolase, haloacid dehalogenase-like family
6712	DNA internalization-related competence protein ComEC/Rec2
6716	competence protein CeiA (ceiA)
6720	acyltransferase family protein
6732	ATP-dependent RNA helicase DeaD (deaD)
6736	lipoprotein, YaeC family
6738	ABC transporter, permease protein
6752	diacylglycerol kinase (dgkA)
6768	formamidopyrimidine-DNA glycosylase (mutM)
6776	epidermin immunity protein F
6788	glycyl-tRNA synthetase, beta subunit (glyS)
6790	acyl carrier protein phosphodiesterase
6800	SsrA-binding protein (smpB)
6822	D-alanine-D-alanine ligase
6824	recombination protein RecR (recR)
6830	penicillin-binding protein 2b
6832	phosphoglycerate mutase (gpmA)
6836	triosephosphate isomerase (tpiA)
6856	phosphoglycerate mutase family protein
6860	D-alanyl-D-alanine carboxypeptidase family
6864	autolysin
6868	heat-inducible transcription repressor HrcA (hrcA)

6872	heat shock protein GrpE (grpE)
6876	chaperone protein dnaK
6880	dnaJ protein (dnaJ)
6884	transcriptional regulator, gntR family domain protein
6888	tRNA pseudouridine synthase A (truA)
6892	phosphomethylpyrimidine kinase (thiD)
6910	galactose-6-phosphate isomerase, LacA subunit (lacA)
6922	tagatose 1,6-diphosphate aldolase (lacD)
6932	sugar ABC transporter, ATP-binding protein (msmK)
6936	glucan 1,6-alpha-glucosidase (dexB)
6940	UDP-glucose 4-epimerase (galE)
6942	response regulator (citB)
6950	citrate carrier protein (citS)
6954	malate oxidoreductase (tme)
6958	bacterocin transport accessory protein
6976	transposase family protein (orfA)
6980	pXO1-128
6986	adhesion lipoprotein (lmb)
6994	DNA-directed RNA polymerase, alpha subunit (rpoA)
6998	ribosomal protein L17 (rplQ)
7040	probable dna-directed rna polymerase delta subunit
7044	CTP synthase (pyrG)
7058	bacteriocin transport accessory protein
7074	translation initiation factor IF-3 (infC)
7100	adenosine deaminase
8468	preprotein translocase, SecE subunit
8476	antigen, 67 kDa
8486	Lipase/Acylhydrolase
8492	peptide ABC transporter, permease protein (oppB)
8494	competence protein CglB (cglB)
8502	peptide ABC transporter, peptide-binding protein
8504	oxidoreductase
8510	amino acid ABC transporter, permease protein (opuBB)
8522	abc transporter atp-binding protein ybhF
8530	glycerol-3-phosphate dehydrogenase (NAD(P)+) (gpsA)
8538	sugar ABC transporter, sugar-binding protein
8544	secreted 45 kd protein (usp45)
8556	phosphoglycerate mutase family protein
8566	glycosyl hydrolase, family 3
8576	N-acetylmuramoyl-L-alanine amidase
8596	sensory box histidine kinase (withHAMPandPASd)
8608	aminoglycoside 6-adenylyltransferase
8622	iron compound ABC transporter, permease protein (sirB)
8636	phosphate ABC transporter, permease protein (pstC-2)
8650	branched-chain amino acid transport system II carrier protein (bmQ)
8658	PTS system, IID component
8662	replisome organiser-related protein
8674	alkaline amylopullulanase
8676	exfoliative toxin A
8690	glycerol uptake facilitator protein (glpF)
8698	ABC transporter, ATP-binding protein
8706	CDP-diacylglycerol-glycerol-3-phosphate 3-phosphatidyltransferase (pgs)
8708	cobalt transport protein
8730	integral membrane protein
8734	yadS protein
8736	cell wall surface anchor family protein
8748	polysaccharide biosynthesis protein
8752	glycosyl transferase domain protein
8764	endopeptidase O

8770	beta-ketoacyl-acyl carrier protein synthase II
8772	ABC transporter, ATP-binding protein
8776	penicillin-binding protein
8778	cell wall surface anchor family protein
8780	cell wall surface anchor family protein
8786	LPXTG-motif cell wall anchor domain protein
8788	6-aminohexanoate-cyclic-dimer hydrolase
8796	NLP/P60 family protein
8802	DNA/RNA non-specific endonuclease
8806	hydroxyethylthiazole kinase (thiM)
8826	PTS system component
8832	sugar ABC transporter, permease protein
8836	potassium uptake protein, Trk family (trkA)
8850	lemA protein (lemA)
8856	cobalt transport protein
8882	spermidine/putrescine ABC transporter, spermidine/putrescine-binding pr
8884	spermidine/putrescine ABC transporter, permease protein (potC)
8906	ABC transporter, substrate-binding protein
8908	lipoprotein
8916	sensor histidine kinase
8930	TrsK-like protein (traK)
8936	R5 protein
8962	chromosome assembly protein homolog
8978	ribose ABC transporter, permease protein (rbsC)
8980	permease
8982	sensor histidine kinase (arlS)
8986	hydrolase, haloacid dehalogenase-like family (gph)
8994	dephospho-CoA kinase
8996	oxalateformate antiporter
9004	sensory box protein
9006	host cell surface-exposed lipoprotein
9012	PAP2 family protein
9034	GtrA family protein
9050	lipoprotein signal peptidase (lspA)
9280	alcohol dehydrogenase, zinc-containing (adh)
9284	trigger factor (tig)
9290	fructose-bisphosphate aldolase (fba)
9292	DAK2 domain protein
9296	oligopeptide ABC transporter, permease protein
9298	N-acetylglucosamine-6-phosphate deacetylase (nagA)
9300	transcriptional regulator, DeoR family (IacR)
9302	PTS system, mannose-specific IIC component (manM)
9306	Phosphoglucose isomerase
9310	aspartate--ammonia ligase (asnA)
9312	amino acid ABC transporter, ATP-binding protein
9314	DNA-binding protein HU (hup)
9316	DHH subfamily 1 protein
9318	chloride channel
9320	integrase (int)
9324	DNA/RNA non-specific endonuclease
9326	PTS system component
9328	cell division protein, FtsW/RodA/SpoVE family (ftsW)
9330	LPXTG-motif cell wall anchor domain protein
9332	peptide chain release factor 3 (prfC)
9334	ABC transporter, ATP-binding protein
9336	superoxide dismutase [mn-fe]
9340	phenylalanyl-tRNA synthetase, alpha subunit (pheS)
9342	amino acid ABC transporter, permease protein
9344	phosphate ABC transporter, phosphate-binding protein (pstS)



9346	NOL1/NOP2/sun family protein (sun)
9348	Abortive infection protein family
9350	permease
9352	N-acetylmuramoyl-L-alanine amidase domain protein (usp45)
9354	ABC transporter, ATP-binding protein
9356	phosphoglucomutase (pgm)
9358	oxidoreductase, short chain dehydrogenase/reductase family
9360	phosphate acetyltransferase
9362	gls24 protein
9364	ribosomal protein S1 (rpsA)
9368	dTDP-glucose 4,6-dehydratase (rfbB)
9370	excinuclease ABC, C subunit (uvrC)
9372	MATE efflux family protein
9378	amino acid permease (rocE)
9380	DNA-binding response regulator TrcR (trcR)
9382	16S rRNA processing protein RimM (rimM)
9384	transcriptional regulator
9388	ribosomal protein L20 (rplT)
9394	sugar-binding transcriptional repressor, LacI family (malR)
9396	proton/peptide symporter family protein
9398	amino acid permease
9400	exoribonuclease, VacB/Rnb family (vacB)
9402	multi-drug resistance efflux pump (pmrA)
9404	adhesion lipoprotein (psaA)
9406	iron-dependent transcriptional regulator (sirR)
9410	branched-chain amino acid ABC transporter, amino acid-binding protein (
9412	amino acid permease
9414	SpoU rRNA Methylase family protein
9416	sodium/dicarboxylate symporter (gltP-2)
9418	branched-chain amino acid transport system II carrier protein (brnQ)
9420	alcohol dehydrogenase, zinc-containing
9422	aminotransferase, class I (aspB)
9424	ribosomal protein S6 (rpsF)
9426	A/G-specific adenine glycosylase (mutY)
9428	acid phosphatase (olpA)
9430	ribosomal protein S12 (rpsL)
9434	microcin immunity protein MccF (mccF-1)
9436	undecaprenyl diphosphate synthase (uppS)
9438	preprotein translocase, YajC subunit (yajC)
9440	chaperonin, 10 kDa (groES)
9444	YitT family protein
9446	serine protease (htrA)
9448	ribose-phosphate pyrophosphokinase (prsA)
9450	aromatic amino acid aminotransferase (araT)
9452	Recombination protein O (recO)
9454	Abortive infection protein family
9456	fatty acid/phospholipid synthesis protein PlsX (plsX)
9458	acyl carrier protein (acpP)
9462	phosphoribosylaminoimidazole carboxylase, ATPase subunit (purK)
9464	alcohol dehydrogenase, iron-containing
9466	ribosomal protein L18 (rplR)
9468	preprotein translocase, SecY subunit
9470	transcriptional regulator ComX1 (comX1)
9472	deoxyuridine 5'-triphosphate nucleotidohydrolase (dut)
9478	sugar-binding transcriptional regulator, LacI family (rbsR)
9480	SPFH domain/Band 7 family
9488	zinc ABC transporter, permease protein (adcB)
9492	abortive infection protein
9494	hydrolase, haloacid dehalogenase-like family

9496	response regulator (lytT)
9500	transketolase, C-terminal subunit
9502	polyribonucleotide nucleotidyltransferase (pnp)
9504	serine O-acetyltransferase (cysE)
9508	ribosomal protein L13 (rplM)
9510	replication initiation protein
9518	amino acid ABC transporter, amino acid-binding protein
9522	glycyl-tRNA synthetase, alpha subunit (glyQ)
9524	NADH oxidase
9528	transketolase (tkl)
9534	penicillin-binding protein 1A (pbp1A)
9536	cell division protein DivIVA (divIVA)
9538	sensor histidine kinase
9540	serine/threonine protein kinase (pknB)
9542	transcriptional regulator
9544	PTS system, IIA component (lacF)
9546	glycerol dehydrogenase (gldA)
9548	aspartate kinase (thrA)
9550	enoyl-CoA hydratase/isomerase family protein
9552	acyl carrier protein (acpP)
9564	ABC transporter, ATP-binding protein
9566	N utilization substance protein A (nusA)
9568	ribosome-binding factor A (rbfA)
9570	Cof family protein
9572	CoA binding domain protein (b0965)
9574	transcriptional regulator, Fur family
9578	queuine tRNA-ribosyltransferase (tgt)
9580	ribonuclease P protein component (rnpA)
9582	serine protease, subtilase family
9584	glycosyl transferase domain protein
9586	transcriptional activator, AraC family
9588	transcriptional regulator, TetR family
9590	transcriptional regulator, AraC family
9594	surface protein Rib
9596	transposase, mutator family
9600	acetyltransferase, GNAT family
9602	Transposase, Mutator family
9606	UDP-sugar hydrolase
9610	anthranilate synthase component II (trpG)
9612	biotin synthetase (bioB)
9616	UDP-N-acetylmuramoylalanine--D-glutamate ligase (murD)
9618	yimF protein (yimF)
9620	amino acid ABC transporter, permease protein
9622	phosphoglucomutase (pgm)
9624	YjeF-related protein, C-terminus
9626	FemAB family protein (fibA)
9628	Cof family protein
9630	cell division ABC transporter, permease protein FtsX (ftsX)
9632	oxidoreductase, short-chain dehydrogenase/reductase family (fabG)
9634	aspartate aminotransferase (aspC)
9638	ribosomal protein L31 (rpmE)
9640	nrdI protein (nrdI)
9642	ribosomal protein L19 (rplS)
9644	bacteriophage L54a, repressor protein
9646	bacteriophage L54a, antirepressor
9652	single-strand binding protein (ssb)
9660	pneumococcal surface protein A
9666	DNA-binding response regulator (vncR)
9668	transposase OrfAB, subunit B

9670	cell division protein, FtsW/RodA/SpoVE family (rodA)
9672	DNA gyrase, B subunit (gyrB)
9674	3-phosphoshikimate 1-carboxyvinyltransferase (aroA)
9676	RNA methyltransferase, TrmA family
9680	transcriptional regulator, AraC family
9682	ABC transporter, ATP-binding protein
9690	CylJ
9696	permease
9698	regulatory protein
9700	carbohydrate kinase, pfkB family
9702	beta-glucuronidase
9704	2-deydro-3-deoxyphosphogluconate aldolase/4-hydroxy-2-oxoglutarate aldo
9706	3-oxoacyl-(acyl-carrier-protein) reductase
9708	catabolite control protein A (ccpA)
9712	ribonuclease III (mc)
9714	SMC family, C-terminal domain family
9718	S1 RNA binding domain protein
9722	prolipoprotein diacylglycerol transferase (lgt)
9724	riboflavin synthase, alpha subunit (ribE)
9726	3,4-dihydroxy-2-butanone 4-phosphate synthase/GTP cyclohydrolase II (ri
9728	lysyl-tRNA synthetase (lysS)
9734	Transposase subfamily
9738	translation elongation factor Tu (tuf)
9740	UDP-N-acetylmuramoylalanyl-D-glutamyl-2,6-diaminopimelate--D-alanyl-D-a
9746	Glutathione S-transferases domain protein
9754	Ribonucleotide reductases
9756	biotin--acetyl-CoA-carboxylase ligase
9760	Uncharacterized protein family SNZ family
9762	methionine aminopeptidase, type I (map)
9764	DNA ligase, NAD-dependent (ligA)
9766	glucose-1-phosphate adenyltransferase (glgC)
9768	UDP-N-acetylglucosamine 1-carboxyvinyltransferase (murA)
9770	acetyltransferase, GNAT family
9772	exonuclease RexA (rexA)
9774	tRNA modification GTPase TrmE (trmE)
9776	ABC transporter, ATP-binding protein
9778	pyruvate dehydrogenase complex, E1 component, pyruvate dehydrogenase al
9782	Mur ligase family protein
9786	HD domain protein
9788	translation elongation factor G (fusA)
9796	pyruvate kinase (pyk)
9798	Signal peptidase I
9802	cytidine deaminase (cdd)
9804	sugar ABC transporter, ATP-binding protein
9806	sugar ABC transporter, permease protein
9808	acetyltransferase, GNAT family
9810	ABC transporter, permease protein
9812	SatD
9814	Helix-turn-helix domain, fis-type protein
9816	phosphate ABC transporter, ATP-binding protein (pstB-1)
9818	tRNA pseudouridine synthase B (truB)
9820	Acetyltransferase (GNAT) family
9822	DNA topoisomerase I (topA)
9824	ribonuclease HII (mhB)
9830	orotidine 5'-phosphate decarboxylase (pyrF)
9832	aspartate-semialdehyde dehydrogenase (asd)
9836	pantothenate metabolism flavoprotein (dfp)
9840	Sua5/YciO/YrdC/YwIC family protein
9844	thiamine biosynthesis protein ApbE

9846	Domain of unknown function
9848	DNA repair protein RadC (radC)
9850	glycosyl hydrolase, family 1 (bglA)
9852	Cof family protein (b0844)
9854	spermidine/putrescine ABC transporter, permease protein (potH)
9856	folypolyglutamate synthase (folC)
9858	homoserine dehydrogenase (hom)
9860	succinate-semialdehyde dehydrogenase (gabD-1)
9862	membrane protein
9864	ATP-dependent DNA helicase PcrA (pcrA)
9866	uracil permease (uraA)
9868	sodiumalanine symporter family protein
9878	capsular polysaccharide biosynthesis protein Cps4B (cps4B)
9880	transcriptional regulator, LysR family
9882	CpsIaS
9884	chloride channel protein
9886	tributylin esterase (estA)
9888	ABC transporter, ATP-binding protein (potA)
9890	alpha-acetolactate decarboxylase (budA)
9892	TPR domain protein
9896	metallo-beta-lactamase superfamily protein
9898	tRNA delta(2)-isopentenylpyrophosphate transferase (miaA)
9902	glycerophosphoryl diester phosphodiesterase
9904	transposase OrfAB, subunit B
9906	IS3-Spn1, transposase
9908	transposase OrfAB, subunit B (orfB)
9910	reverse transcriptase
9916	transposase OrfAB, subunit B
9918	integrase, phage family (int)
9920	transcription regulator
9922	TnpA
9926	structural gene for ultraviolet resistance (uvrA)
9930	Helicases conserved C-terminal domain protein
9932	abortive infection bacteriophage resistance protein (abiEi)
9944	ribosomal protein L7/L12 (rplL)
9948	ATP-dependent Clp protease, ATP-binding subunit ClpX (clpX)
9950	dihydrofolate reductase (folA)
9952	hemolysin
9954	transcriptional regulator, MarR family
9958	polyA polymerase family protein
9960	PTS system, fructose specific IIABC components (fruA-1)
9962	lactose phosphotransferase system repressor (lacR)
9964	choline binding protein D (cbpD)
9968	pyrimidine operon regulatory protein (pyrR)
9970	ribosomal large subunit pseudouridine synthase D (rluD)
9972	thiamine biosynthesis protein Thil (thil)
9974	3-dehydroquinate dehydratase, type I (aroD)
9976	iron compound ABC transporter, ATP-binding protein (fepC)
9980	transcriptional regulator
9982	glycosyl transferase domain protein
9984	Cps9H
9988	4-diphosphocytidyl-2C-methyl-D-erythritol synthase (ispD)
9990	licD1 protein (licD1)
9996	large conductance mechanosensitive channel protein (mscL)
10000	maltose ABC transporter, maltose-binding protein
10004	nucleotide sugar synthetase-like protein
10006	transcriptional regulator
10008	oxidoreductase, aldo/keto reductase family
10010	NAD(P)H-flavin oxidoreductase

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10016	transcriptional regulator MutR
10018	GTP-binding protein Era (era)
10022	peptide methionine sulfoxide reductase (msrA)
10026	peptide ABC transporter, ATP-binding protein
10028	peptide ABC transporter, ATP-binding protein (amiE)
10030	peptide ABC transporter, peptide-binding protein
10032	transposase, IS30 family
10034	transcriptional regulator, LysR family
10036	spoE family protein (ftsK)
10044	methionyl-tRNA synthetase (metG)
10046	D-isomer specific 2-hydroxyacid dehydrogenase family protein (serA)
10048	acetyltransferase, GNAT family
10050	phosphoserine aminotransferase (serC)
10054	thymidylate kinase (tmk)
10060	branched-chain amino acid ABC transporter, permease protein (livH)
10062	ATP-dependent Clp protease, proteolytic subunit ClpP (clpP)
10064	uracil phosphoribosyltransferase (upp)
10066	potassium uptake protein, Trk family (trkH)
10068	glutamate racemase (murl)
10070	membrane protein
10072	HD domain protein
10074	Acylphosphatase
10076	spolIJ family protein
10078	acetyltransferase, GNAT family
10080	glucose-inhibited division protein B (gidB)
10082	potassium uptake protein, Trk family
10084	ABC transporter, permease protein
10088	isochorismatase family protein
10092	haloacid dehalogenase-like hydrolase superfamily
10094	membrane protein
10096	glutamyl-tRNA(Gln) amidotransferase, B subunit (gatB)
10098	CBS domain protein protein
10100	transcriptional regulator (codY)
10102	universal stress protein family
10104	L-asparaginase (ansA)
10106	oxidoreductase, aldo/keto reductase 2 family
10108	preprotein translocase, SecA subunit (secA)
10112	excinuclease ABC, A subunit (uvrA)
10114	magnesium transporter, CorA family (corA)
10116	thioredoxin (trx)
10118	MutS2 family protein (mutS2)
10122	DNA-damage inducible protein P (dinP)
10124	formate acetyltransferase (pfl)
10126	transcriptional regulator, Crp family
10128	transport ATP-binding protein CydC
10138	ribosomal-protein-alanine acetyltransferase (rimI)
10140	hydrolase
10144	D-alanine-activating enzyme (dltA)
10148	carbohydrate kinase, FGGY family
10150	transaldolase
10160	Helix-turn-helix domain protein
10164	single-strand binding protein (ssb)
10166	type II DNA modification methyltransferase Spn5252IP (spn5252IMP)
10174	integrase, phage family
10178	Cyclic nucleotide-binding domain protein
10180	transcriptional regulator, MarR family
10182	prolyl-tRNA synthetase (proS)
10184	leucine-rich protein
10186	lacX protein, truncation (lacX)

10188	tagatose-6-phosphate kinase (lacC)
10190	galactose-6-phosphate isomerase, LacB subunit (lacB)
10192	neuraminidase
10198	Histidine kinase-, DNA gyrase B-, phytochrome-like ATPase domain protei
10200	ABC transporter, ATP-binding protein
10202	PTS system, IIABC components (ptsG)
10204	phosphate regulon response regulator PhoB (phoB)
10212	Uncharacterized ACR, COG2161 subfamily
10216	abortive phage resistance protein
10222	TnpA
10226	acetyltransferase, GNAT family
10230	ABC transporter domain protein
10234	5-methyltetrahydropteroyltriglutamate--homocysteine methyltransferase (
10236	branched-chain amino acid transport protein AzIC (azIC)
10240	DNA-binding response regulator (srrA)
10242	leucyl-tRNA synthetase (leuS)
10246	NupC family protein
10248	transcriptional regulator, GntR family
10252	glyoxalase family protein
10254	anaerobic ribonucleoside-triphosphate reductase (nrdD)
10256	competence-induced protein Ccs4
10262	competence/damage-inducible protein CinA (cinA)
10264	DNA-3-methyladenine glycosylase I (tag)
10268	DNA mismatch repair protein HexB (hexB)
10270	arginine repressor (argR)
10272	arginyl-tRNA synthetase (argS)
10274	aspartyl-tRNA synthetase (aspS)
10276	histidyl-tRNA synthetase (hisS)
10280	AGR_pAT_51p
10286	hydrolase, alpha/beta hydrolase fold family
10288	phage infection protein
10290	Glucose inhibited division protein A (gidA)
10292	tRNA (5-methylaminomethyl-2-thiouridylate)-methyltransferase (trmU)
10296	arginine/ornithine antiporter (arcD)
10298	chromosomal replication initiator protein DnaA (dnaA)
10302	peptidyl-tRNA hydrolase (pth)
10310	phosphotyrosine protein phosphatase
10316	ribosomal protein L36 (rpmJ)
10318	ribosomal protein S13/S18 (rpsM)
10328	L-lactate dehydrogenase (ldh)
10330	ribosomal protein L28 (rpmB)
10362	RNA polymerase sigma-70 factor, ECF subfamily
10384	BioY family protein
10386	AtsA/ElaC family protein
10388	cytidine/deoxycytidylate deaminase family protein
10394	phosphorylase, Pnp/Udp family
10396	transcriptional regulator, MerR family
10402	methyltransferase (ubiE)
10412	type IV prepilin peptidase
10416	ylmG protein (ylmG)
10444	transposase OrfAB, subunit B
10446	IS150-like transposase
10452	Bacterial regulatory proteins, tetR family domain protein
10454	cell wall surface anchor family protein, authentic frameshift (clfB)
10456	transposase OrfAB, subunit A (orfA)
10460	chaperonin, 33 kDa (hslO)
10472	(3R)-hydroxymyristoyl-(acyl-carrier-protein) dehydratase (fabZ)
10482	sprT protein
10490	transcriptional regulator, MarR family



10498	transcriptional regulator
10504	glycogen biosynthesis protein GlgD (glgD)
10536	ribonucleoside-diphosphate reductase, alpha subunit, truncation (nrdD)
10538	LPXTG-motif cell wall anchor domain
10550	membrane protein
10554	arsenate reductase (arsC)
10564	transposase, authentic frameshift
10570	transposase OrfAB, subunit A (orfA)
10574	Tn5252, Orf 9 protein
10580	IS3-Spn1, transposase
10584	transcriptional regulator, ArsR family
10628	ribosomal protein L35 (rpml)
10630	cytidylate kinase (cmk)
10636	MutT/nudix family protein
10644	preprotein translocase, SecG subunit
10680	ribosomal protein S18 (rpsR)
10682	single-strand binding protein (ssb)
10692	glyceraldehyde 3-phosphate dehydrogenase (gap)
10694	translation elongation factor G (fusA)
10696	ribosomal protein S7 (rpsG)
10704	phosphinothricin N-acetyltransferase (pat)
10730	nrdI protein (nrdI)
10732	accessory gene regulator protein C (blpH)
10744	rhodanese family protein (pspE)
10746	cAMP factor
10758	competence/damage-inducible protein CinA (cinA)
10770	transcriptional regulator, ArgR family (argR)
10772	FliP family family
10794	peptide ABC transporter, peptide-binding protein
10800	ribosomal protein S21 (rpsU)
10802	transposase, IS30 family
10816	mucin 2 precursor, intestinal
10854	SV40-transformed marker protein pG1-related protein
10856	SV40-transformed marker protein pG1-related protein
10858	SV40-transformed marker protein pG1-related protein
10860	SV40-transformed marker protein pG1-related protein
10862	SV40-transformed marker protein pG1-related protein
10864	SV40-transformed marker protein pG1-related protein
10866	SV40-transformed marker protein pG1-related protein
10910	transcriptional regulator
10920	ribosomal protein S11 (rpsK)
10922	elaA protein
10926	5-formyltetrahydrofolate cyclo-ligase family protein
10938	inositol monophosphatase family protein
10940	amino acid ABC transporter, amino acid-binding protein (artI)
10944	Holliday junction DNA helicase RuvB (ruvB)
10946	D-alanyl-D-alanine carboxypeptidase (dacA)
10948	lipoprotein (bmpD)
10950	peptidase, U32 family family
10952	protease maturation protein
10954	glutamyl-tRNA synthetase (glfX)
10956	GTP-binding protein LepA (lepA)
10960	translation initiation factor if-2
10962	phosphoenolpyruvate carboxylase (ppc)
10964	calcium E1-E2-type ATPase
10966	serine protease, subtilase family

**CLAIMS**

1. A protein comprising an amino acid sequence selected from the group consisting of SEQ IDs 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 1136, 1138, 1140, 1142, 1144, 1146, 1148, 1150, 1152, 1154, 1156, 1158, 1160, 1162, 1164, 1166, 1168, 1170, 1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300, 1302, 1304, 1306, 1308, 1310, 1312, 1314, 1316, 1318, 1320, 1322, 1324, 1326, 1328, 1330, 1332, 1334, 1336, 1338, 1340, 1342, 1344, 1346, 1348, 1350, 1352, 1354, 1356, 1358, 1360, 1362, 1364, 1366, 1368, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388, 1390, 1392, 1394, 1396, 1398, 1400, 1402, 1404, 1406, 1408, 1410, 1412, 1414, 1416, 1418, 1420, 1422, 1424, 1426, 1428, 1430, 1432, 1434, 1436, 1438, 1440, 1442, 1444, 1446, 1448, 1450, 1452, 1454, 1456, 1458, 1460, 1462, 1464, 1466, 1468, 1470, 1472, 1474, 1476, 1478, 1480, 1482, 1484, 1486, 1488, 1490, 1492, 1494, 1496, 1498, 1500, 1502, 1504, 1506, 1508, 1510, 1512, 1514, 1516, 1518, 1520, 1522, 1524, 1526, 1528, 1530, 1532, 1534, 1536, 1538, 1540, 1542, 1544, 1546, 1548, 1550, 1552, 1554, 1556, 1558, 1560, 1562, 1564, 1566, 1568, 1570, 1572, 1574, 1576, 1578, 1580, 1582, 1584, 1586, 1588, 1590, 1592, 1594, 1596, 1598, 1600, 1602, 1604, 1606, 1608, 1610, 1612, 1614, 1616, 1618, 1620, 1622, 1624, 1626, 1628, 1630, 1632, 1634, 1636, 1638, 1640, 1642, 1644, 1646, 1648, 1650, 1652, 1654, 1656, 1658, 1660, 1662, 1664, 1666, 1668, 1670, 1672, 1674, 1676, 1678, 1680, 1682, 1684, 1686, 1688, 1690, 1692, 1694, 1696, 1698, 1700, 1702, 1704, 1706, 1708, 1710, 1712, 1714, 1716, 1718, 1720,

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2. A protein having 50% or greater sequence identity to a protein according to claim 1.

5 3. A protein comprising a fragment of 7 or more consecutive amino acids from an amino acid sequence selected from the group consisting of SEQ IDs 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 176, 178, 180, 182, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202, 204, 206, 208, 210, 10 212, 214, 216, 218, 220, 222, 224, 226, 228, 230, 232, 234, 236, 238, 240, 242, 244, 246, 248, 250, 252, 254, 256, 258, 260, 262, 264, 266, 268, 270, 272, 274, 276, 278, 280, 282, 284, 286, 288, 290, 292, 294, 296, 298, 300, 302, 304, 306, 308, 310, 312, 314, 316, 318, 320, 322, 324, 326, 328, 330, 332, 334, 336, 338, 340, 342, 344, 346, 348, 350, 352, 354, 356, 358, 360, 362, 364, 366, 368, 370, 372, 374, 376, 378, 380, 382, 384, 386, 388, 390, 392, 394, 396, 398, 400, 402, 404, 406, 408, 410, 412, 414, 416, 418, 420, 422, 424, 426, 428, 430, 432, 434, 436, 438, 440, 442, 444, 446, 448, 450, 15 452, 454, 456, 458, 460, 462, 464, 466, 468, 470, 472, 474, 476, 478, 480, 482, 484, 486, 488, 490, 492, 494, 496, 498, 500, 502, 504, 506, 508, 510, 512, 514, 516, 518, 520, 522, 524, 526, 528, 530, 532, 534, 536, 538, 540, 542, 544, 546, 548, 550, 552, 554, 556, 558, 560, 562, 564, 566, 568, 570, 572, 574, 576, 578, 580, 582, 584, 586, 588, 590, 592, 594, 596, 598, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, 624, 626, 628, 630, 632, 634, 636, 638, 640, 642, 644, 646, 648, 650, 652, 654, 656, 658, 660, 662, 664, 666, 668, 670, 672, 674, 676, 678, 680, 682, 684, 686, 688, 690, 20 692, 694, 696, 698, 700, 702, 704, 706, 708, 710, 712, 714, 716, 718, 720, 722, 724, 726, 728, 730, 732, 734, 736, 738, 740, 742, 744, 746, 748, 750, 752, 754, 756, 758, 760, 762, 764, 766, 768, 770, 772, 774, 776, 778, 780, 782, 784, 786, 788, 790, 792, 794, 796, 798, 800, 802, 804, 806, 808, 810, 812, 814, 816, 818, 820, 822, 824, 826, 828, 830, 832, 834, 836, 838, 840, 842, 844, 846, 848, 850, 852, 854, 856, 858, 860, 862, 864, 866, 868, 870, 872, 874, 876, 878, 880, 882, 884, 886, 888, 890, 892, 894, 896, 898, 900, 902, 904, 906, 908, 910, 912, 914, 916, 918, 920, 922, 924, 926, 928, 930, 25 932, 934, 936, 938, 940, 942, 944, 946, 948, 950, 952, 954, 956, 958, 960, 962, 964, 966, 968, 970, 972, 974, 976, 978, 980, 982, 984, 986, 988, 990, 992, 994, 996, 998, 1000, 1002, 1004, 1006, 1008, 1010, 1012, 1014, 1016, 1018, 1020, 1022, 1024, 1026, 1028, 1030, 1032, 1034, 1036, 1038, 1040, 1042, 1044, 1046, 1048, 1050, 1052, 1054, 1056, 1058, 1060, 1062, 1064, 1066, 1068, 1070, 1072, 1074, 1076, 1078, 1080, 1082, 1084, 1086, 1088, 1090, 1092, 1094, 1096, 1098, 1100, 1102, 1104, 1106, 1108, 1110, 1112, 1114, 1116, 1118, 1120, 1122, 1124, 1126, 1128, 1130, 1132, 1134, 30 1136, 1138, 1140, 1142, 1144, 1146, 1148, 1150, 1152, 1154, 1156, 1158, 1160, 1162, 1164, 1166, 1168, 1170, 1172, 1174, 1176, 1178, 1180, 1182, 1184, 1186, 1188, 1190, 1192, 1194, 1196, 1198, 1200, 1202, 1204, 1206, 1208, 1210, 1212, 1214, 1216, 1218, 1220, 1222, 1224, 1226, 1228, 1230, 1232, 1234, 1236, 1238, 1240, 1242, 1244, 1246, 1248, 1250, 1252, 1254, 1256, 1258, 1260, 1262, 1264, 1266, 1268, 1270, 1272, 1274, 1276, 1278, 1280, 1282, 1284, 1286, 1288, 1290, 1292, 1294, 1296, 1298, 1300, 1302, 1304, 1306, 1308, 1310, 1312, 1314, 1316, 1318, 1320, 1322, 1324, 35 1326, 1328, 1330, 1332, 1334, 1336, 1338, 1340, 1342, 1344, 1346, 1348, 1350, 1352, 1354, 1356, 1358, 1360, 1362, 1364, 1366, 1368, 1370, 1372, 1374, 1376, 1378, 1380, 1382, 1384, 1386, 1388, 1390, 1392, 1394, 1396, 1398, 1400, 1402, 1404, 1406, 1408, 1410, 1412, 1414, 1416, 1418, 1420, 1422, 1424, 1426, 1428, 1430, 1432, 1434, 1436, 1438, 1440, 1442, 1444, 1446, 1448, 1450, 1452, 1454, 1456, 1458, 1460, 1462, 1464, 1466, 1468, 1470, 1472, 1474, 1476, 1478, 1480, 1482, 1484, 1486, 1488, 1490, 1492, 1494, 1496, 1498, 1500, 1502, 1504, 1506, 1508, 1510, 1512, 1514, 40 1516, 1518, 1520, 1522, 1524, 1526, 1528, 1530, 1532, 1534, 1536, 1538, 1540, 1542, 1544, 1546, 1548, 1550, 1552, 1554, 1556, 1558, 1560, 1562, 1564, 1566, 1568, 1570, 1572, 1574, 1576, 1578, 1580, 1582, 1584, 1586, 1588, 1590,

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4. An antibody which binds to a protein according to any one of claims 1 to 3.

5. The antibody of claim 4, wherein said antibody is a monoclonal antibody, a chimeric antibody, a humanised antibody, or a fully human antibody.

6. A nucleic acid molecule which encodes a protein according to any one of claims 1 to 3.

7. A nucleic acid molecule according to claim 6, comprising a nucleotide sequence selected from the group consisting of SEQ IDs 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533, 535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565, 567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629, 631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661, 663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693, 695, 697, 699, 701, 703, 705, 707, 709, 711, 713, 715, 717, 719, 721, 723, 725, 727, 729, 731, 733, 735, 737, 739, 741, 743, 745, 747, 749, 751, 753, 755, 757, 759, 761, 763, 765, 767, 769, 771, 773, 775, 777, 779, 781, 783, 785, 787, 789, 791, 793, 795, 797, 799, 801, 803, 805, 807, 809, 811, 813, 815, 817, 819, 821, 823, 825, 827, 829, 831, 833, 835, 837, 839, 841, 843, 845, 847, 849, 851, 853, 855, 857, 859, 861, 863, 865, 867, 869, 871, 873, 875, 877, 879, 881, 883, 885, 887, 889, 891, 893, 895, 897, 899, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, 945, 947, 949, 951, 953, 955, 957, 959, 961, 963, 965, 967, 969, 971, 973, 975, 977, 979, 981, 983, 985, 987, 989, 991, 993, 995, 997, 999, 1001, 1003, 1005, 1007, 1009, 1011, 1013, 1015, 1017, 1019, 1021, 1023, 1025, 1027, 1029, 1031, 1033, 1035, 1037, 1039, 1041, 1043, 1045, 1047, 1049, 1051, 1053, 1055, 1057, 1059, 1061, 1063, 1065, 1067, 1069, 1071, 1073, 1075, 1077, 1079, 1081, 1083, 1085, 1087, 1089, 1091, 1093, 1095, 1097, 1099, 1101, 1103, 1105, 1107, 1109, 1111, 1113, 1115, 1117, 1119, 1121, 1123, 1125, 1127, 1129, 1131, 1133, 1135, 1137, 1139, 1141, 1143, 1145, 1147, 1149, 1151, 1153, 1155, 1157, 1159, 1161, 1163, 1165, 1167, 1169, 1171, 1173, 1175, 1177, 1179, 1181, 1183, 1185, 1187, 1189, 1191, 1193, 1195, 1197, 1199, 1201, 1203, 1205, 1207, 1209, 1211, 1213, 1215, 1217, 1219, 1221, 1223, 1225, 1227, 1229, 1231, 1233, 1235, 1237, 1239, 1241, 1243, 1245, 1247, 1249, 1251, 1253, 1255, 1257, 1259, 1261, 1263, 1265, 1267, 1269, 1271, 1273, 1275, 1277, 1279, 1281, 1283, 1285, 1287, 1289, 1291, 1293, 1295, 1297, 1299, 1301, 1303, 1305, 1307, 1309, 1311, 1313, 1315, 1317, 1319, 1321, 1323, 1325, 1327, 1329,

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8. A nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of SEQ IDs 10967, 10968, 15 10969, 10970, 10971, 10972, 10973, 10974, 10975, 10976, 10977, 10978, 10979, 10980, 10981, 10982, 10983, 10984, 10985, 10986, 10987, 10988, 10989, 10990, 10991, 10992, 10993, 10994, 10995, 10996, 10997, 10998, 10999, 11000, 11001, 11002, 11003, 11004, 11005, 11006, 11007, 11008, 11009, 11010, 11011, 11012, 11013, 11014, 11015, 11016, 11017, 11018, 11019, 11020, 11021, 11022, 11023, 11024, 11025, 11026, 11027, 11028, 11029, 11030, 11031, 11032, 11033, 11034, 11035, 11036, 11037, 11038, 11039, 11040, 11041, 11042, 11043, 11044, 11045, 11046, 11047, 11048, 20 11049, 11050, 11051, 11052, 11053, 11054, 11055, 11056, 11057, 11058, 11059, 11060, 11061, 11062, 11063, 11064, 11065, 11066, 11067, 11068, 11069, 11070, 11071, 11072, 11073, 11074, 11075, 11076, 11077, 11078, 11079, 11080, 11081, 11082, 11083, 11084, 11085, 11086, 11087, 11088, 11089, 11090, 11091, 11092, 11093, 11094, 11095, 11096, 11097, 11098, 11099, 11100, 11101, 11102, 11103, 11104, 11105, 11106, 11107, 11108, 11109, 11110, 11111, 11112, 11113, 11114, 11115, 11116, 11117, 11118, 11119, 11120, 11121, 11122, 11123, 11124, 11125, 11126, 11127, 11128, 25 11129, 11130, 11131, 11132, 11133, 11134, 11135, 11136, 11137, 11138, 11139, 11140, 11141, 11142, 11143, 11144, 11145, 11146, 11147, 11148, 11149, 11150, 11151, 11152, 11153, 11154, 11155, 11156, 11157, 11158, 11159, 11160, 11161, 11162, 11163, 11164, 11165, 11166, 11167, 11168, 11169, 11170, 11171, 11172, 11173, 11174, 11175, 11176, 11177, 11178, 11179, 11180, 11181, 11182, 11183, 11184, 11185, 11186, 11187, 11188, 11189, 11190, 11191, 11192, 11193, 11194, 11195, 11196, 11197, 11198, 11199, 11200, 11201, 11202, 11203, 11204, 11205, 11206, 11207, 11208, 30 11209, 11210, 11211, 11212, 11213, 11214, 11215, 11216, 11217, 11218, 11219, 11220, 11221, 11222, 11223, 11224, 11225, 11226, 11227, 11228, 11229, 11230, 11231, 11232, 11233, 11234, 11235, 11236, 11237, 11238, 11239, 11240, 11241, 11242, 11243, 11244, 11245, 11246, 11247, 11248, 11249, 11250, 11251, 11252, 11253, 11254, 11255, 11256, 11257, 11258, 11259, 11260, 11261, 11262, 11263, 11264, 11265, 11266, 11267, 11268, 11269, 11270, 11271, 11272, 11273, 11274, 11275, 11276, 11277, 11278, 11279, 11280, 11281, 11282, 11283, 11284, 11285, 11286, 11287, 11288, 35 11289, 11290, 11291, 11292, 11293, 11294, 11295, 11296, 11297, 11298, 11299, 11300, 11301, 11302, 11303, 11304, 11305, 11306, 11307, 11308, 11309, 11310, 11311, 11312, 11313, 11314, 11315, 11316, 11317, 11318, 11319, 11320, 11321, 11322, 11323, 11324, 11325, 11326, 11327, 11328, 11329, 11330, 11331, 11332, 11333, 11334, 11335, 11336, 11337, 11338, 11339, 11340, 11341, 11342, 11343, 11344, 11345, 11346, 11347, 11348, 11349, 11350, 11351, 11352, 11353, 11354, 11355, 11356, 11357, 11358, 11359, 11360, 11361, 11362, 11363, 11364, 11365, 11366, 11367, 11368, 40 11369, 11370, 11371, 11372, 11373, 11374, 11375, 11376, 11377, 11378, 11379, 11380, 11381, 11382, 11383, 11384,

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9. A nucleic acid molecule comprising a fragment of 10 or more consecutive nucleotides from a nucleotide sequence selected from the group consisting of SEQ IDs 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 177, 179, 181, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201, 203, 205, 207, 209, 211, 213, 215, 217, 219, 221, 223, 225, 227, 229, 231, 233, 235, 237, 239, 241, 243, 245, 247, 249, 251, 253, 255, 257, 259, 261, 263, 265, 267, 269, 271, 273, 275, 277, 279, 281, 283, 285, 287, 289, 291, 293, 295, 297, 299, 301, 303, 305, 307, 309, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533, 535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565, 567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629, 631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661, 663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693, 695, 697, 699, 701, 703, 705, 707, 709, 711, 713, 715, 717, 719, 721, 723, 725, 727, 729, 731, 733, 735, 737, 739, 741, 743, 745, 747, 749, 751, 753, 755, 757, 759, 761, 763, 765, 767, 769, 771, 773, 775, 777, 779, 781, 783, 785, 787, 789, 791, 793, 795, 797, 799, 801, 803, 805, 807, 809, 811, 813, 815, 817, 819, 821, 823, 825, 827, 829, 831, 833, 835, 837, 839, 841, 843, 845, 847, 849, 851, 853, 855, 857, 859, 861, 863, 865, 867, 869, 871, 873, 875, 877, 879, 881, 883, 885, 887, 889, 891, 893, 895, 897, 899, 901, 903, 905, 907, 909, 911, 913, 915, 917, 919, 921, 923, 925, 927, 929, 931, 933, 935, 937, 939, 941, 943, 945, 947, 949, 951, 953, 955, 957, 959, 961, 963, 965, 967, 969, 971, 973, 975, 977, 979, 981, 983, 985, 987, 989, 991, 993, 995, 997, 999, 1001, 1003, 1005, 1007, 1009, 1011, 1013, 1015, 1017, 1019, 1021, 1023, 1025, 1027, 1029, 1031, 1033, 1035, 1037, 1039, 1041, 1043, 1045, 1047, 1049, 1051, 1053, 1055, 1057, 1059, 1061, 1063, 1065, 1067, 1069, 1071, 1073, 1075, 1077, 1079, 1081, 1083, 1085, 1087, 1089, 1091, 1093, 1095, 1097, 1099, 1101, 1103, 1105, 1107, 1109, 1111, 1113, 1115, 1117, 1119, 1121, 1123, 1125, 1127, 1129, 1131, 1133, 1135, 1137, 1139, 1141, 1143, 1145, 1147, 1149, 1151, 1153, 1155, 1157, 1159, 1161, 1163, 1165, 1167, 1169, 1171, 1173, 1175, 1177, 1179, 1181, 1183, 1185, 1187, 1189, 1191, 1193, 1195, 1197, 1199, 1201, 1203, 1205, 1207, 1209, 1211, 1213, 1215, 1217, 1219, 1221, 1223, 1225, 1227, 1229, 1231, 1233, 1235, 1237, 1239, 1241, 1243, 1245, 1247, 1249, 1251, 1253, 1255, 1257, 1259, 1261, 1263, 1265, 1267, 1269, 1271, 1273, 1275, 1277, 1279, 1281, 1283, 1285, 1287, 1289, 1291, 1293, 1295, 1297, 1299, 1301, 1303, 1305, 1307, 1309, 1311, 1313, 1315, 1317, 1319, 1321, 1323, 1325, 1327, 1329, 1331, 1333, 1335, 1337, 1339, 1341, 1343, 1345, 1347, 1349, 1351, 1353, 1355, 1357, 1359, 1361, 1363, 1365, 1367, 1369, 1371, 1373, 1375, 1377, 1379, 1381, 1383, 1385, 1387, 1389, 1391, 1393, 1395, 1397, 1399, 1401, 1403, 1405, 1407, 1409, 1411, 1413, 1415, 1417, 1419, 1421, 1423, 1425, 1427, 1429, 1431, 1433, 1435, 1437, 1439, 1441, 1443, 1445, 1447, 1449, 1451, 1453, 1455, 1457, 1459, 1461, 1463, 1465, 1467, 1469, 1471, 1473, 1475, 1477, 1479, 1481, 1483, 1485, 1487, 1489, 1491, 1493, 1495, 1497, 1499, 1501, 1503, 1505, 1507, 1509, 1511, 1513, 1515, 1517, 1519, 1521, 1523, 1525, 1527, 1529, 1531, 1533, 1535, 1537, 1539, 1541, 1543, 1545, 1547, 1549, 1551, 1553, 1555, 1557, 1559, 1561, 1563, 1565, 1567, 1569, 1571, 1573, 1575, 1577, 1579, 1581, 1583, 1585, 1587, 1589, 1591, 1593, 1595, 1597, 1599, 1601, 1603, 1605, 1607, 1609, 1611, 1613, 1615, 1617, 1619, 1621, 1623,

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10. A nucleic acid molecule comprising a nucleotide sequence complementary to a nucleic acid molecule according to any one of claims 6 to 9.



11. A nucleic acid molecule comprising a nucleotide sequences having 50% or greater sequence identity to a nucleic acid molecule according to any one of claims 6 to 10.
12. A nucleic acid molecule which can hybridise to a nucleic acid molecule according to any one of claims 6 to 11 under high stringency conditions.
- 5 13. A composition comprising a protein, a nucleic acid molecule, or an antibody according to any preceding claim.
14. A composition according to claim 13, being an immunogenic composition, a vaccine composition or a diagnostic composition.
15. A composition according to claim 13 or claim 14 for use as a pharmaceutical.
16. The use of a composition according to claim 13 in the manufacture of a medicament for the treatment or prevention of  
10 infection or disease caused by streptococcus bacteria, particularly *S.agalactiae* and *S.pyogenes*.
17. A method of treating a patient, comprising administering to the patient a therapeutically effective amount of the composition of claim 13.
18. A hybrid protein represented by the formula  $\text{NH}_2\text{-A-}[\text{-X-L-}]_n\text{-B-COOH}$ , wherein X is an amino acid sequence as defined in claim 1, L is an optional linker amino acid sequence, A is an optional N-terminal amino acid sequence, B is an optional C-terminal  
15 amino acid sequence, and n is an integer greater than 1.
19. A kit comprising primers for amplifying a template sequence contained within a *Streptococcus* nucleic acid sequence, the kit comprising a first primer and a second primer, wherein the first primer is substantially complementary to said template sequence and the second primer is substantially complementary to a complement of said template sequence, wherein the parts of said primers which have substantial complementarity define the termini of the template sequence to be amplified.
- 20 20. A kit comprising first and second single-stranded oligonucleotides which allow amplification of a *Streptococcus* template nucleic acid sequence contained in a single- or double-stranded nucleic acid (or mixture thereof), wherein: (a) the first oligonucleotide comprises a primer sequence which is substantially complementary to said template nucleic acid sequence; (b) the second oligonucleotide comprises a primer sequence which is substantially complementary to the complement of said template nucleic acid sequence; (c) the first oligonucleotide and/or the second oligonucleotide comprise(s) sequence which is not  
25 complementary to said template nucleic acid; and (d) said primer sequences define the termini of the template sequence to be amplified.
21. The kit of claim 20, wherein the non-complementary sequence(s) of (c) comprise a restriction site and/or a promoter sequence.
22. A computer-readable medium containing one or more of SEQ IDs 1 to 12024.
- 30 23. A process for detecting *Streptococcus* in a biological sample, comprising the step of contacting nucleic acid according to any of claims 6 to 12 with the biological sample under hybridising conditions.
24. The process of claim 23, wherein the process involves nucleic acid amplification.

25. A process for determining whether a compound binds to a protein according to claim 1, claim 2 or claim 3, comprising the step of contacting a test compound with a protein according to claim 1, claim 2 or claim 3 and determining whether the test compound binds to said protein.

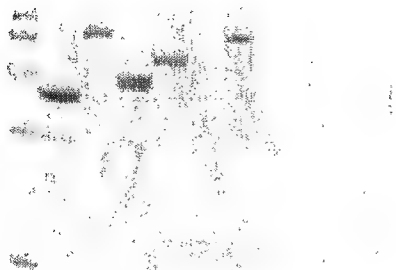
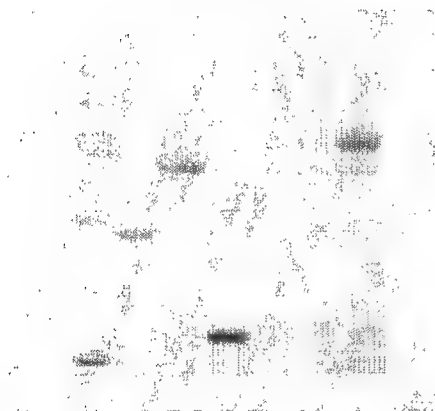
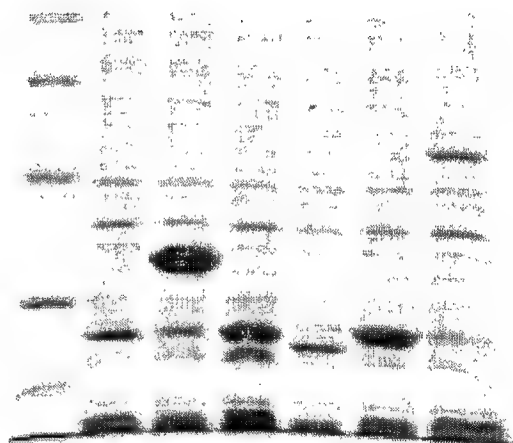
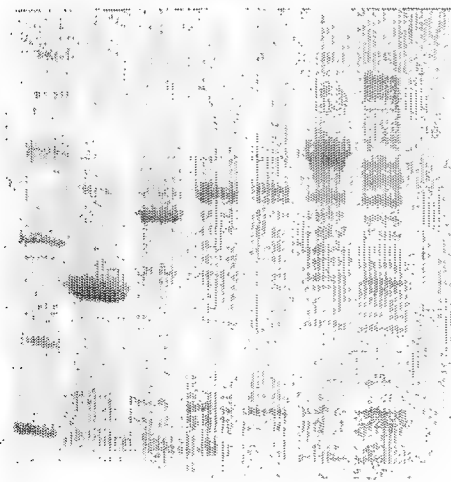
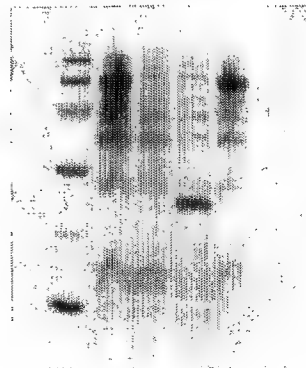
26. A compound identified by the process of claim 25.

5 27. A composition comprising a protein according to claim 1, claim 2 or claim 3 and one or more of the following antigens:

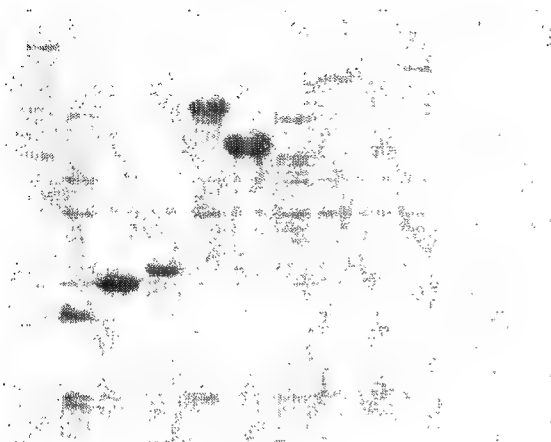
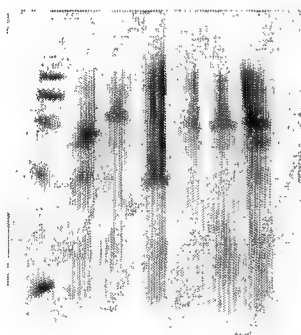
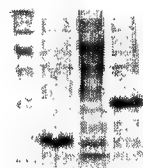
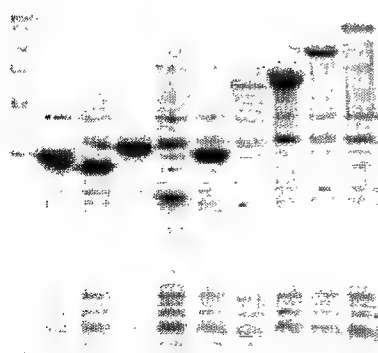
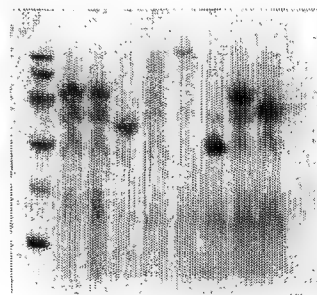
- a protein antigen from *Helicobacter pylori*;
- a protein antigen from *N.meningitidis* serogroup B;
- an outer-membrane vesicle (OMV) preparation from *N.meningitidis* serogroup B;
- a saccharide antigen from *N.meningitidis* serogroup A, C, W135 and/or Y;
- 10 – a saccharide antigen from *Streptococcus pneumoniae*;
- an antigen from hepatitis A virus;
- an antigen from hepatitis B virus;
- an antigen from hepatitis C virus;
- an antigen from *Bordetella pertussis*;
- 15 – a diphtheria antigen;
- a tetanus antigen;
- a saccharide antigen from *Haemophilus influenzae* B.
- an antigen from *N.gonorrhoeae*;
- an antigen from *Chlamydia pneumoniae*;
- 20 – an antigen from *Chlamydia trachomatis*;
- an antigen from *Porphyromonas gingivalis*;
- polio antigen(s);
- rabies antigen(s);
- measles, mumps and/or rubella antigens;
- 25 – influenza antigen(s);
- an antigen from *Moraxella catarrhalis*; and/or
- an antigen from *Staphylococcus aureus*.

28. A composition comprising two or more proteins, wherein each protein is a protein according to claim 1, claim 2 or claim 3.

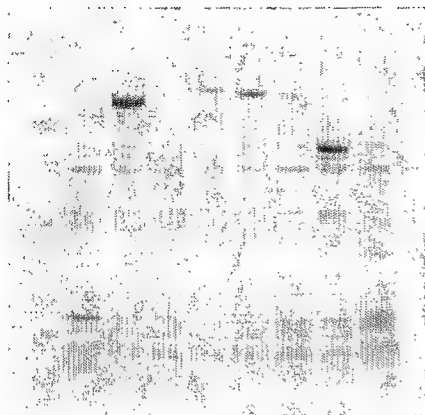
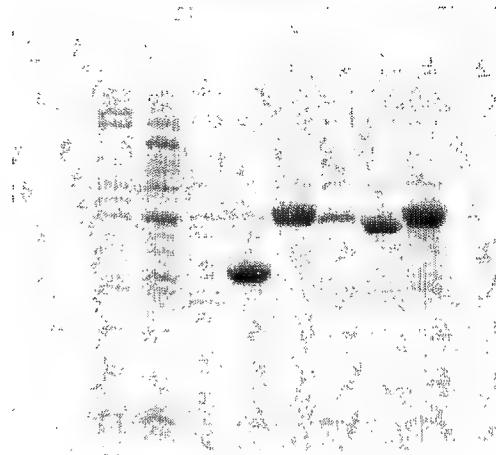
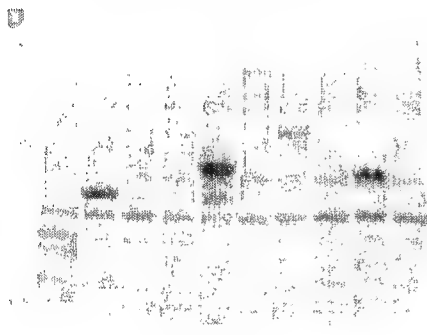
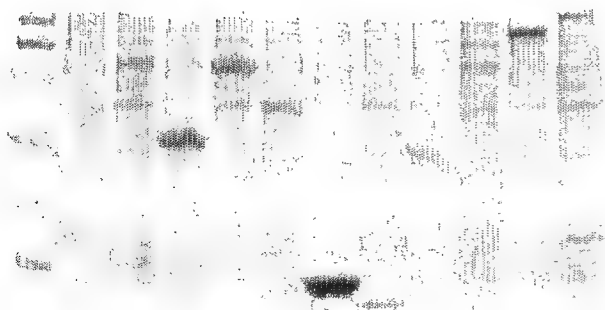
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**FIGURE 1****FIGURE 2****FIGURE 3****FIGURE 4****FIGURE 5****FIGURE 6**

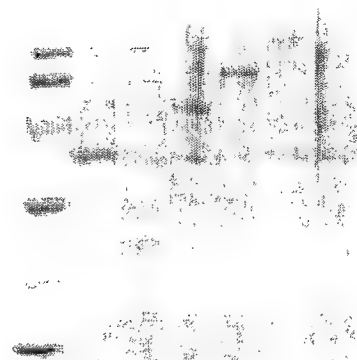
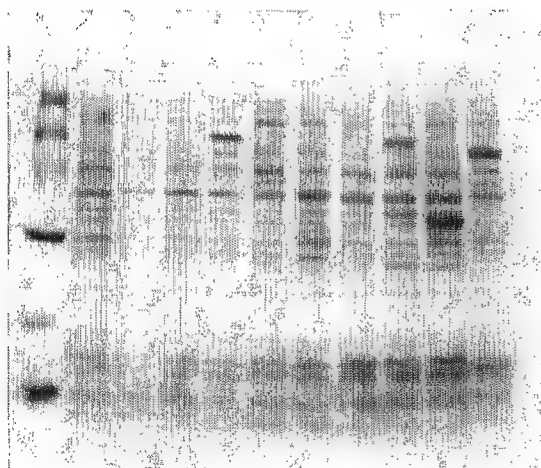
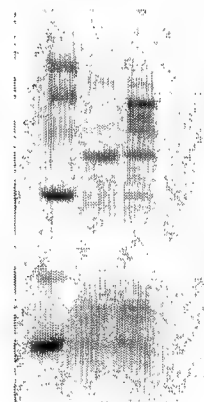
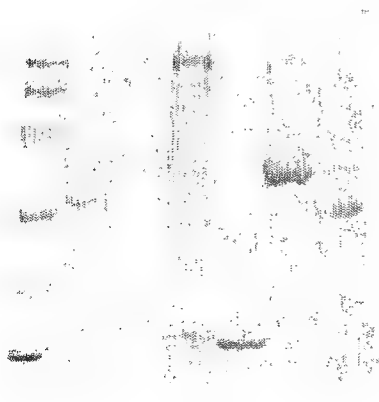
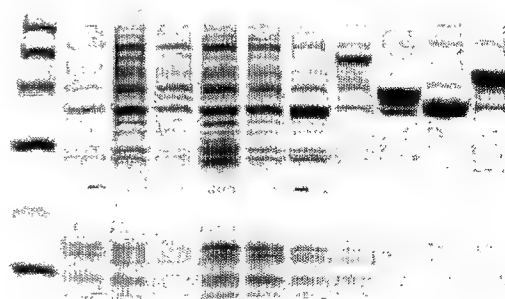
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**FIGURE 7****FIGURE 8****FIGURE 9****FIGURE 10****FIGURE 11****FIGURE 12**

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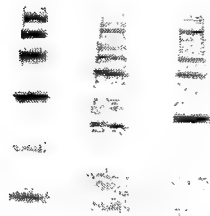
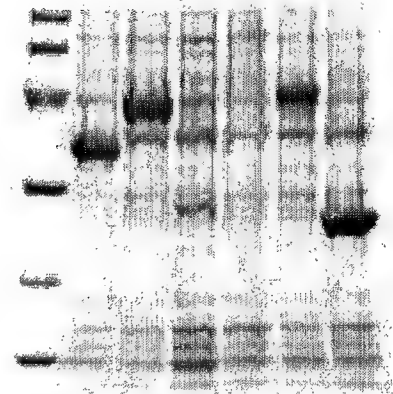
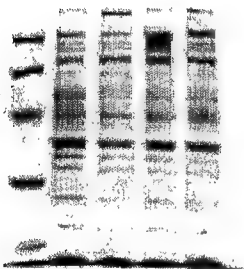
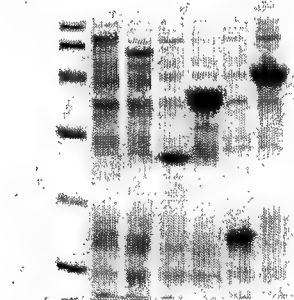
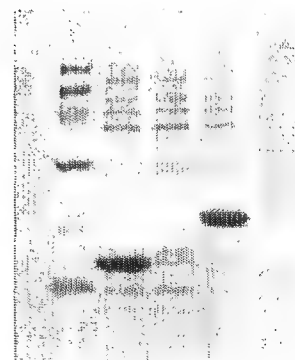
**FIGURE 13****FIGURE 14****FIGURE 15****FIGURE 16****FIGURE 17****FIGURE 18**

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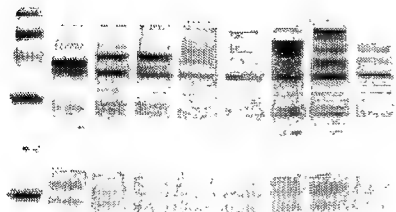
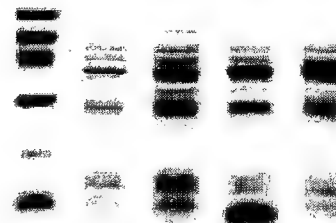
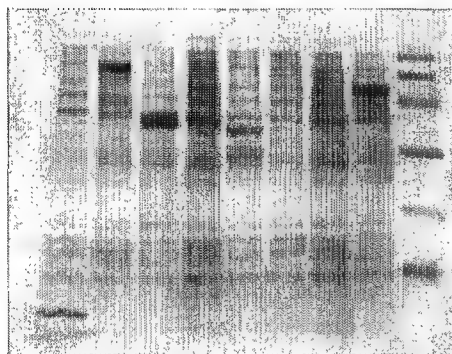
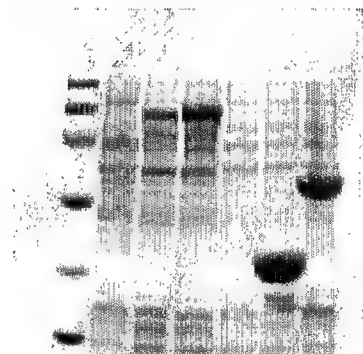
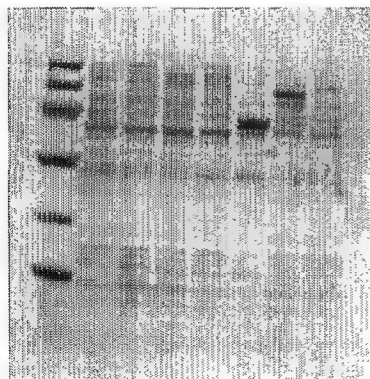
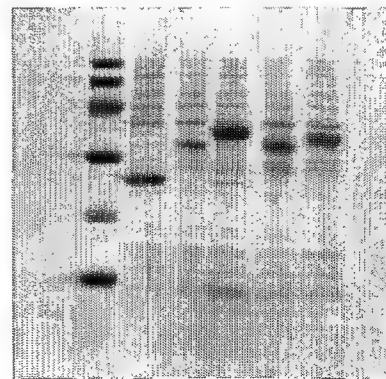
**FIGURE 19****FIGURE 20****FIGURE 21****FIGURE 22****FIGURE 23****FIGURE 24**



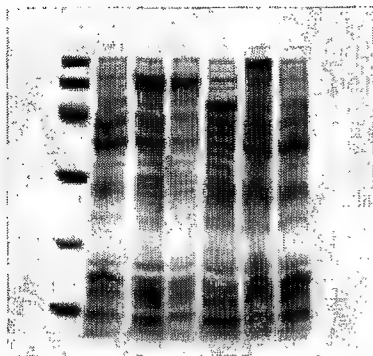
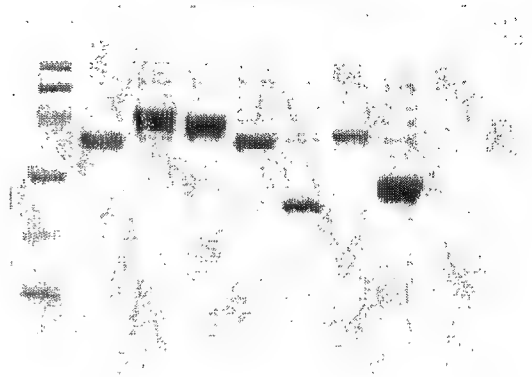
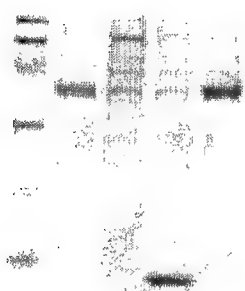
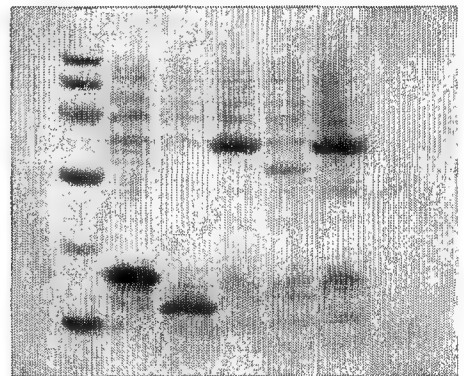
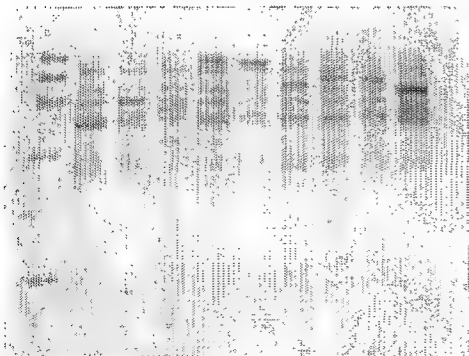
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**FIGURE 25****FIGURE 26****FIGURE 27****FIGURE 28****FIGURE 29****FIGURE 30**

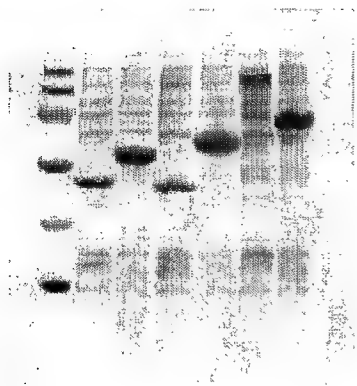
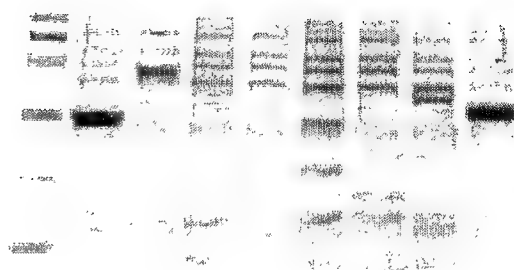
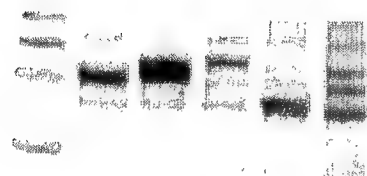
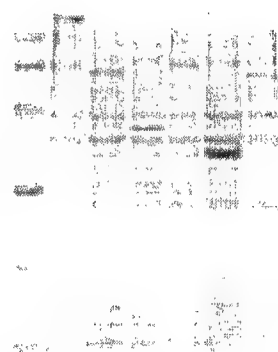
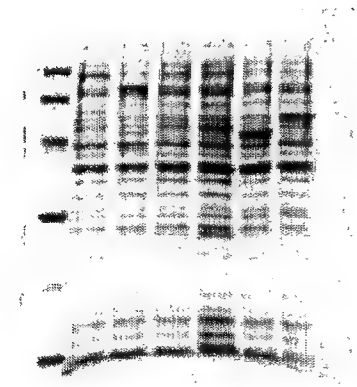
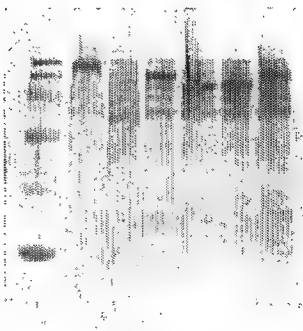
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**FIGURE 31****FIGURE 32****FIGURE 33****FIGURE 34****FIGURE 35****FIGURE 36**

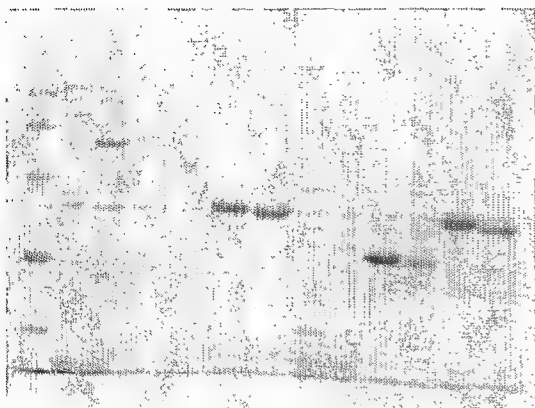
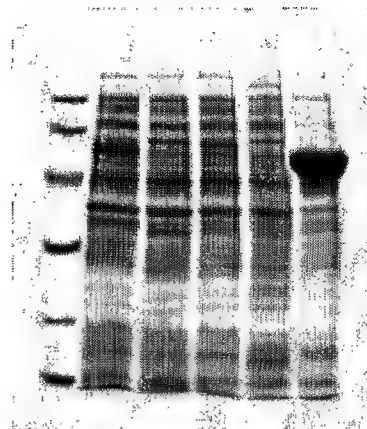
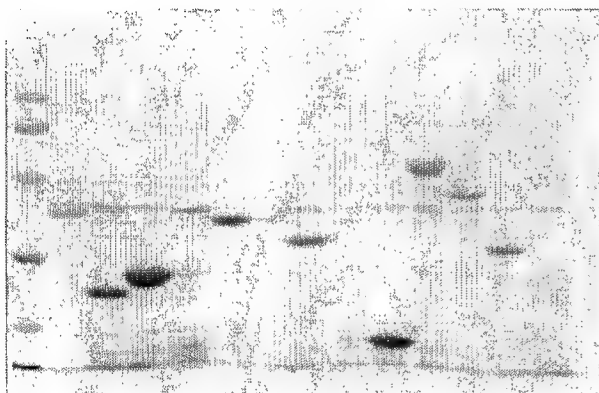
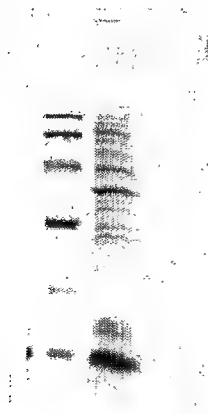
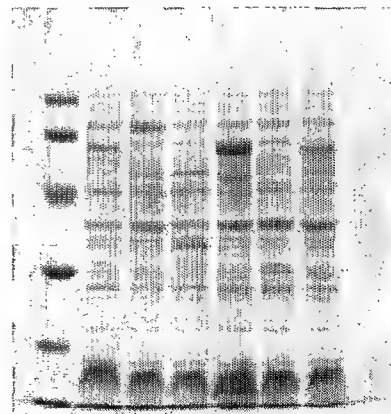
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**FIGURE 37****FIGURE 38****FIGURE 39****FIGURE 40****FIGURE 41****FIGURE 42**

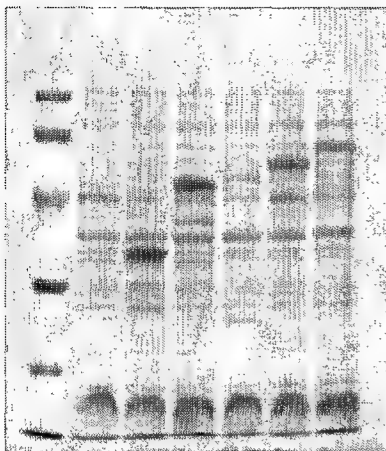
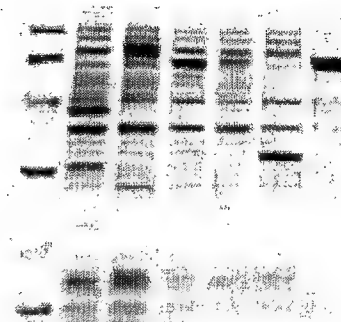
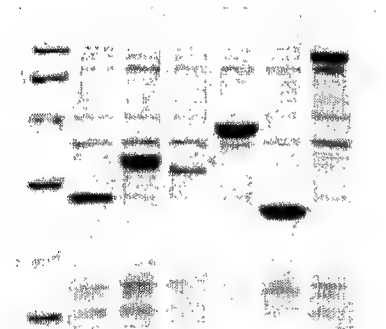
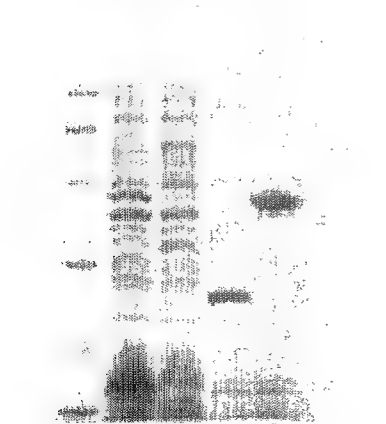
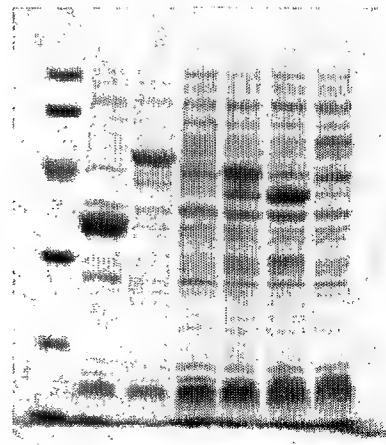
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**FIGURE 43****FIGURE 44****FIGURE 45****FIGURE 46****FIGURE 47****FIGURE 48**

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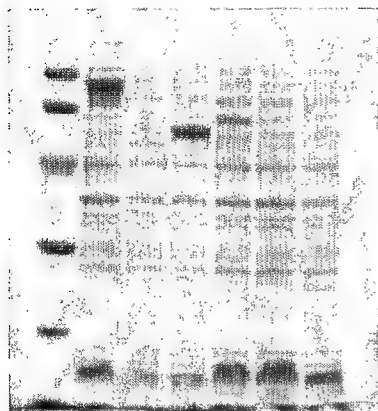
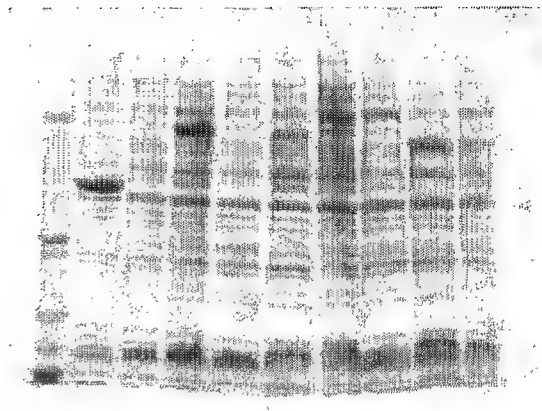
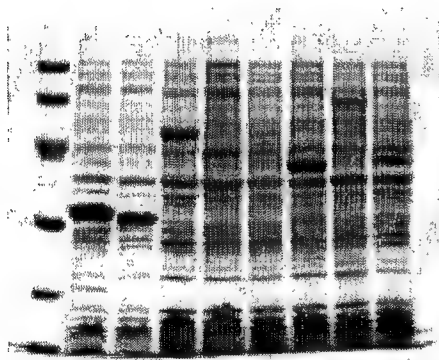
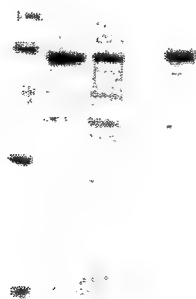
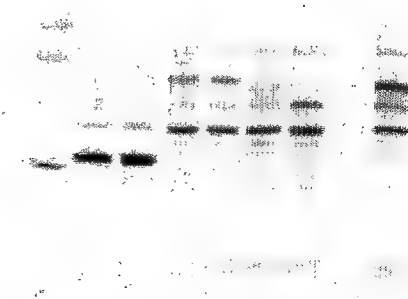
**FIGURE 49****FIGURE 50****FIGURE 51****FIGURE 52****FIGURE 53****FIGURE 54**

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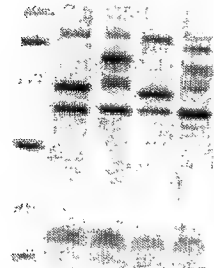
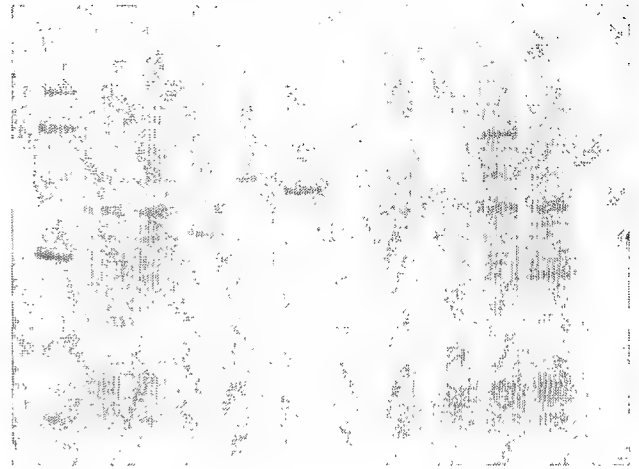
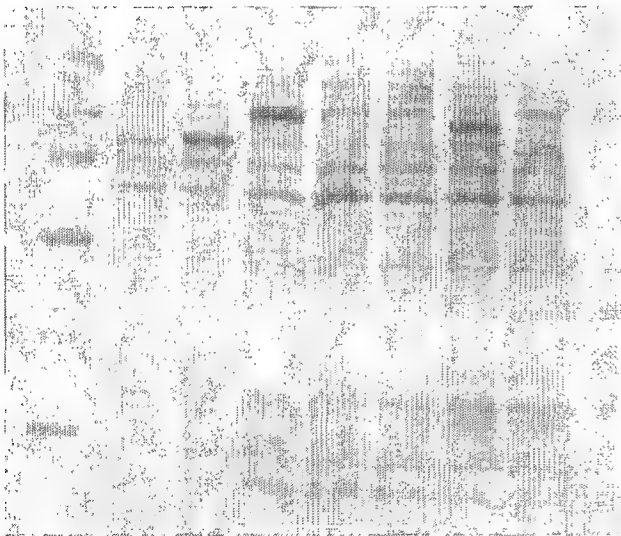
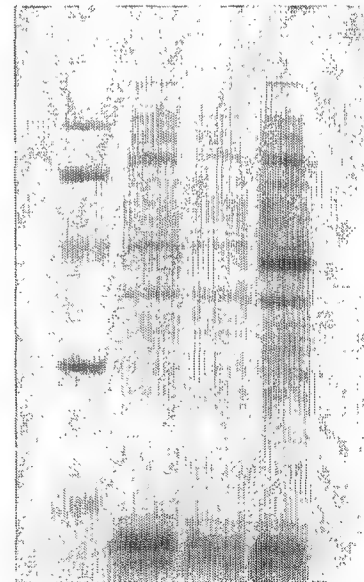
**FIGURE 55****FIGURE 56****FIGURE 57****FIGURE 58****FIGURE 59****FIGURE 60**



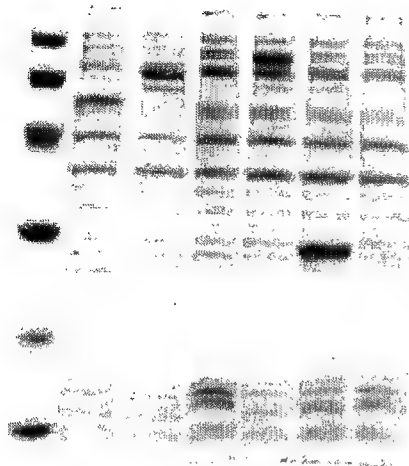
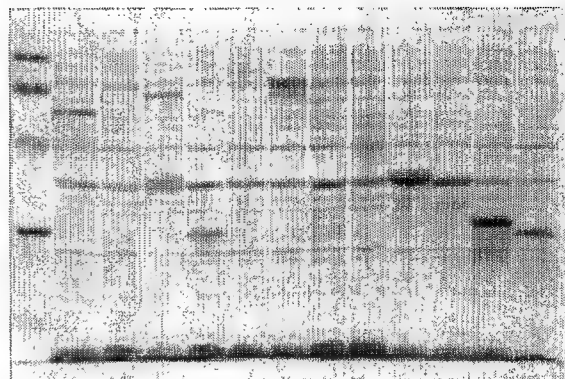
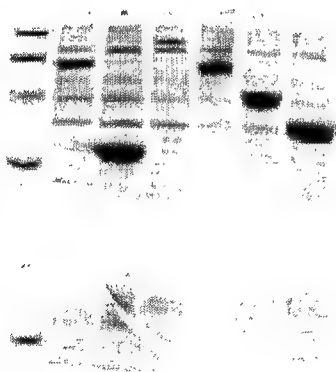
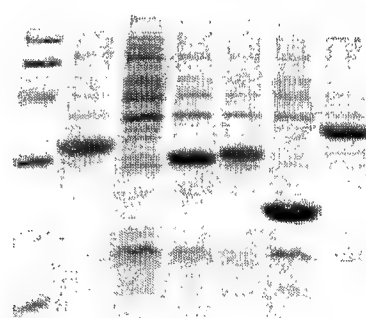
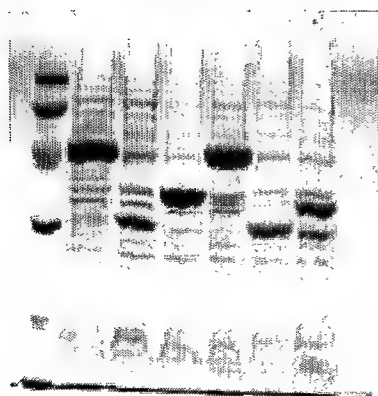
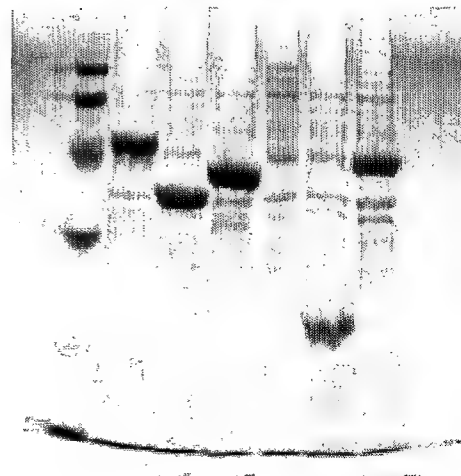
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**FIGURE 61****FIGURE 62****FIGURE 63****FIGURE 64****FIGURE 65****FIGURE 66**

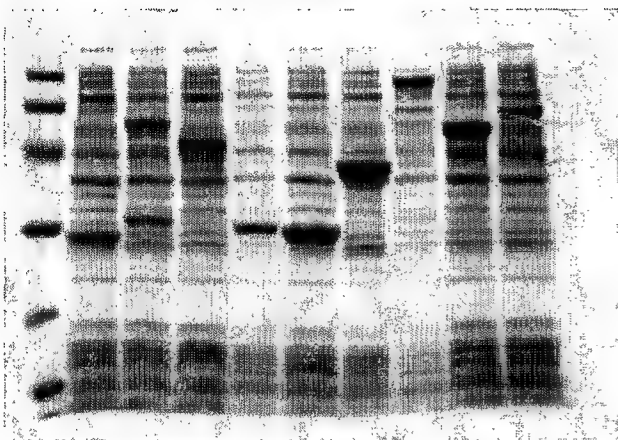
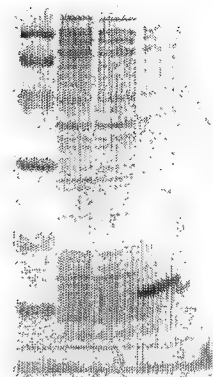
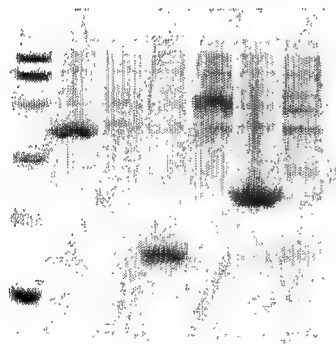
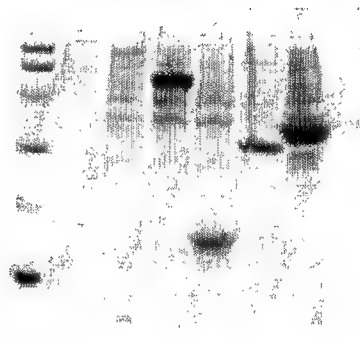
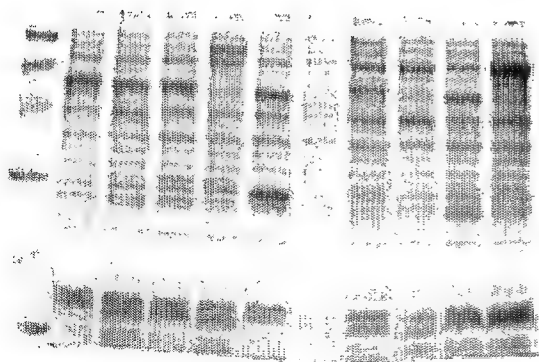
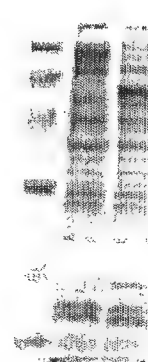
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**FIGURE 67****FIGURE 68****FIGURE 69****FIGURE 70**

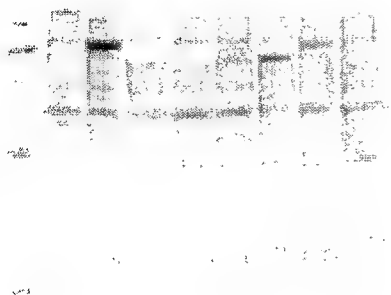
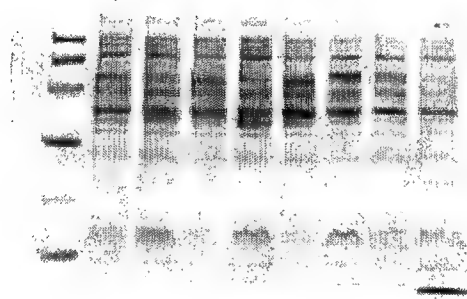
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**FIGURE 71****FIGURE 72****FIGURE 73****FIGURE 74****FIGURE 75****FIGURE 76**

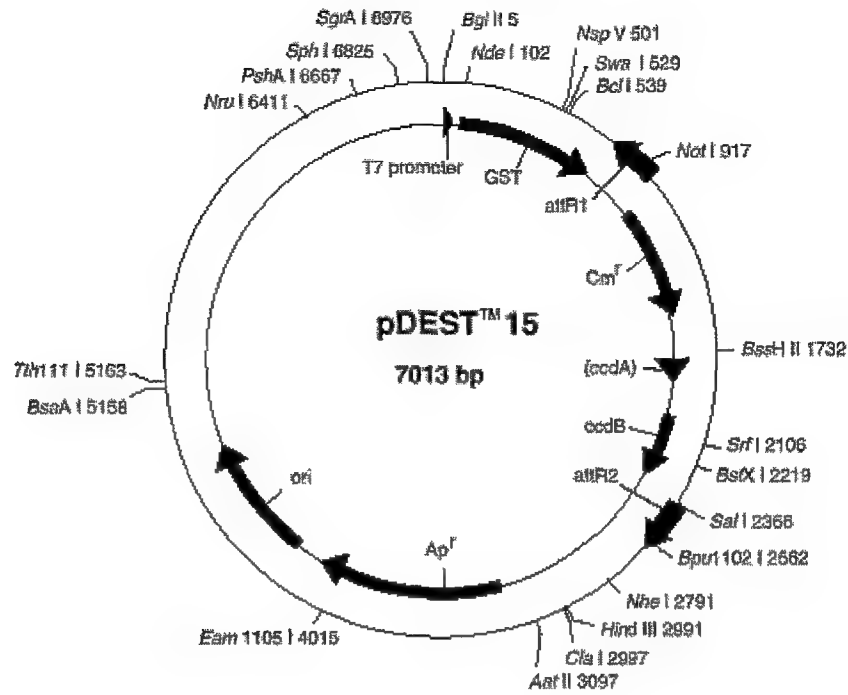
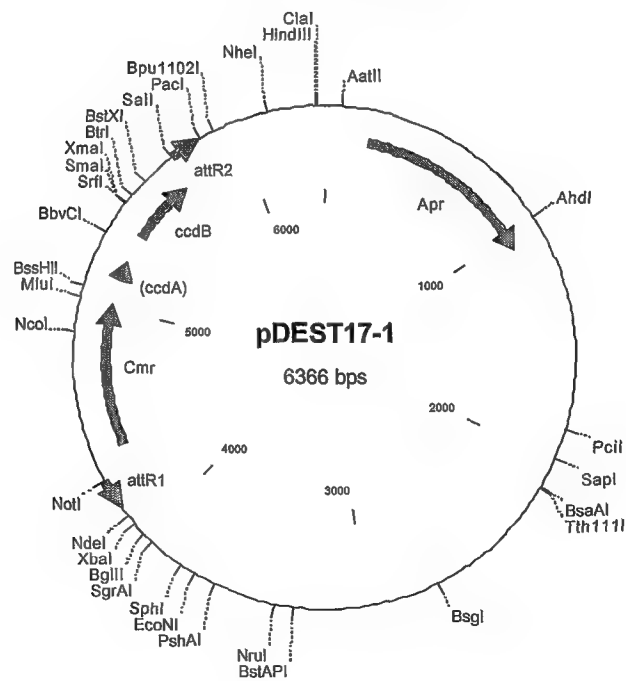
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**FIGURE 77****FIGURE 78****FIGURE 79****FIGURE 80****FIGURE 81****FIGURE 82**

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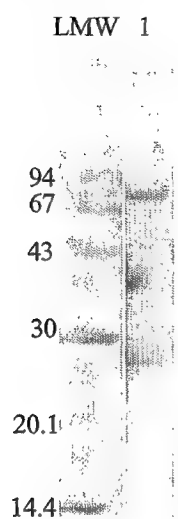
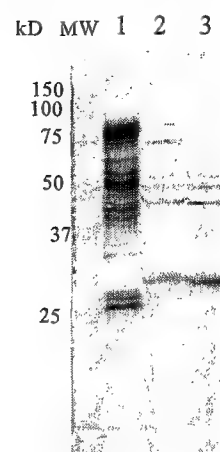
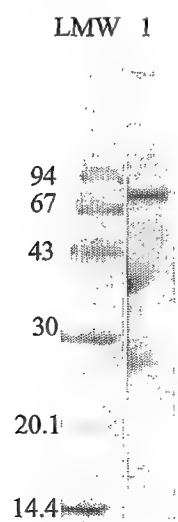
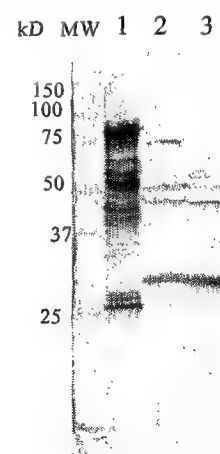
**FIGURE 83****FIGURE 84****FIGURE 85**

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**FIGURE 86A****FIGURE 86B**



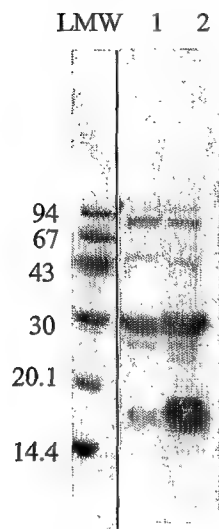
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**FIGURE 87****FIGURE 87A****FIGURE 87B****FIGURE 88****FIGURE 88A****FIGURE 88B**

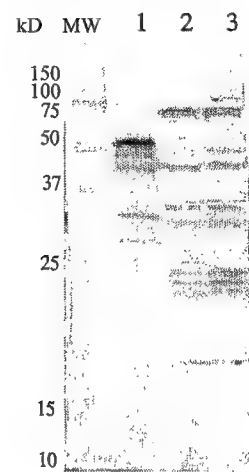
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**FIGURE 89**

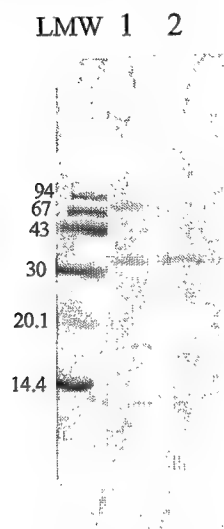
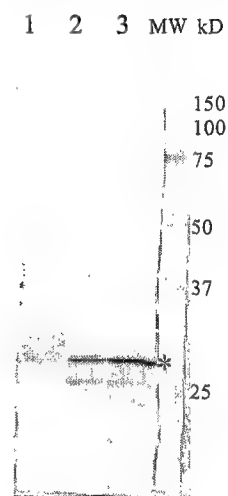
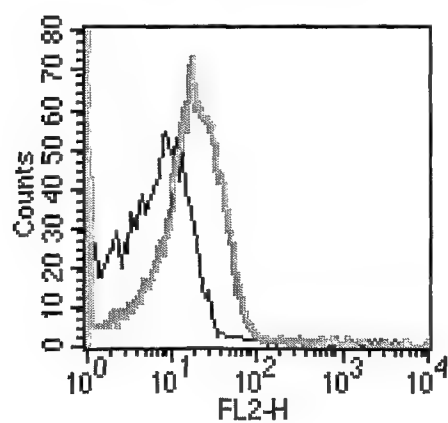
**FIGURE 89A**



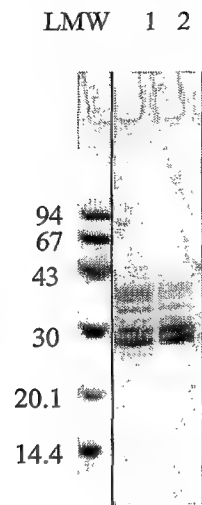
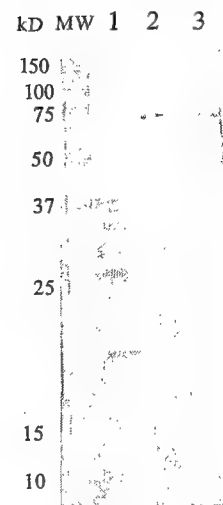
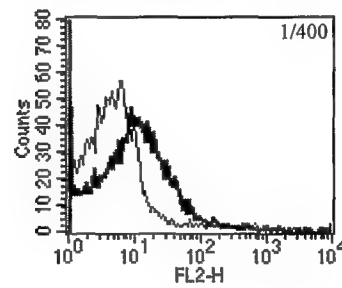
**FIGURE 89B**



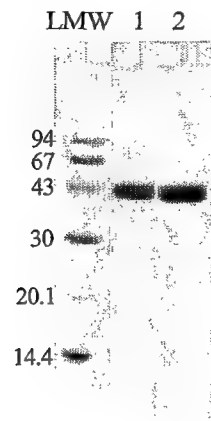
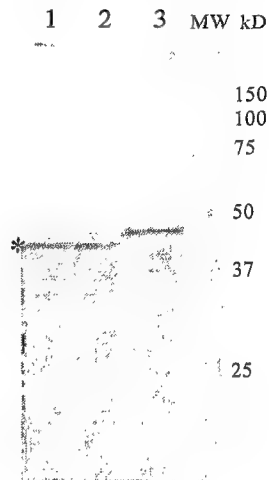
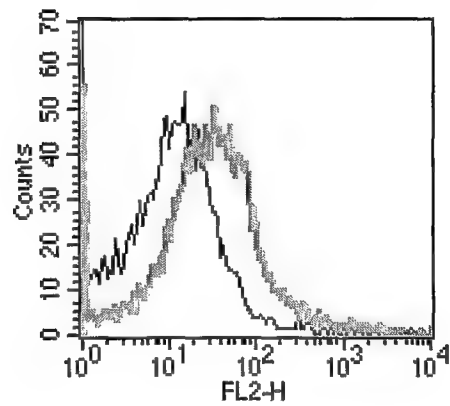
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**FIGURE 90****FIGURE 90A****FIGURE 90B****FIGURE 90C**

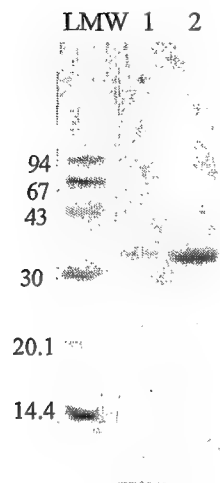
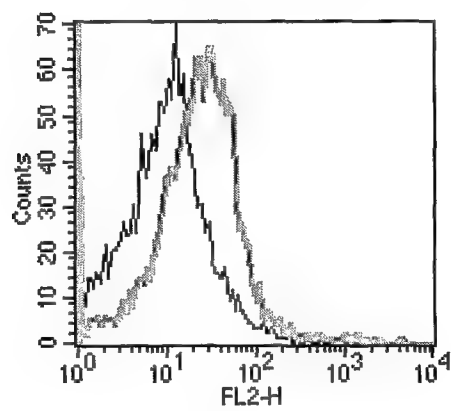
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**FIGURE 91****FIGURE 91A****FIGURE 91B****FIGURE 91C**

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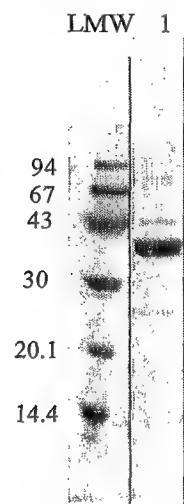
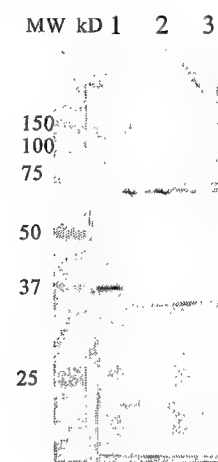
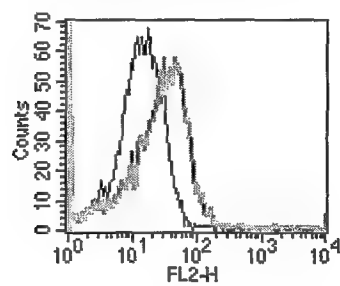
**FIGURE 92****FIGURE 92A****FIGURE 92B****FIGURE 92C**

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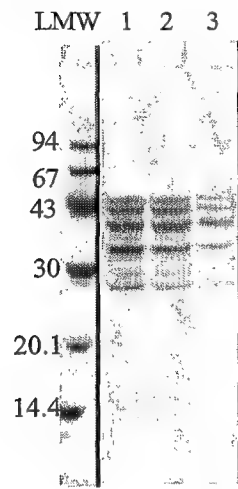
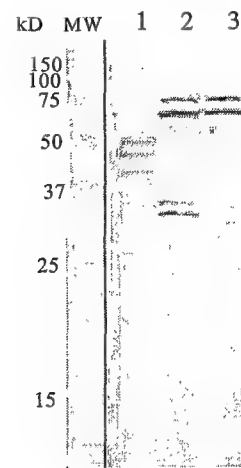
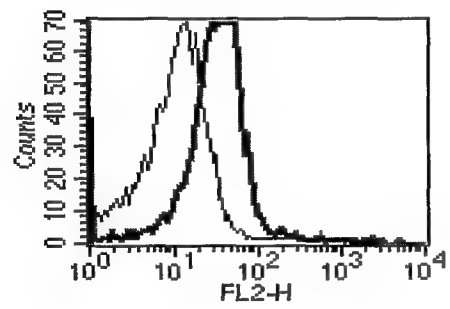
**FIGURE 93****FIGURE 93A****FIGURE 93B****FIGURE 93C**



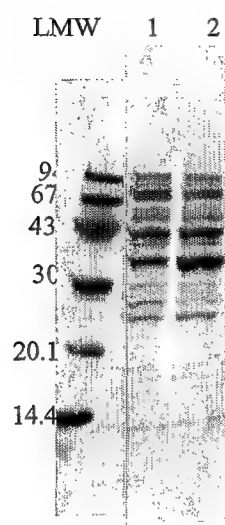
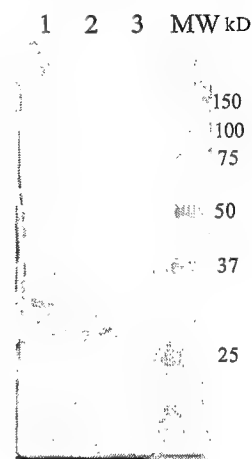
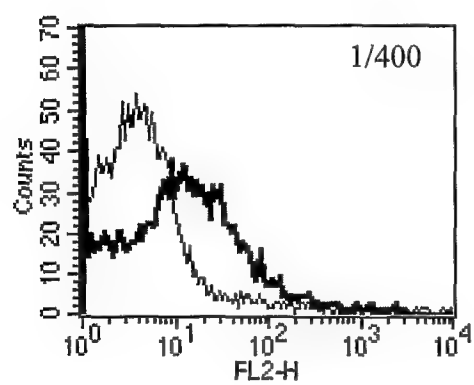
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**FIGURE 94****FIGURE 94A****FIGURE 94B****FIGURE 94C**

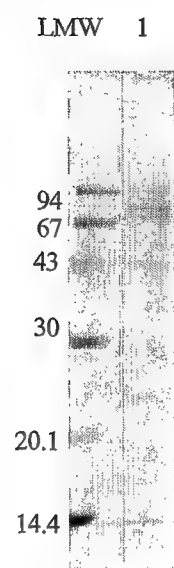
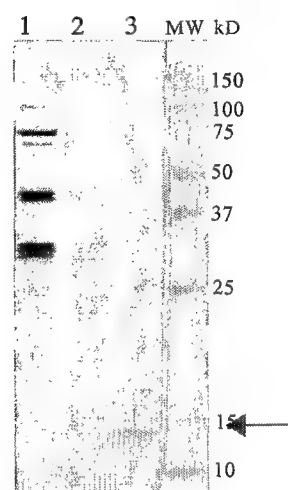
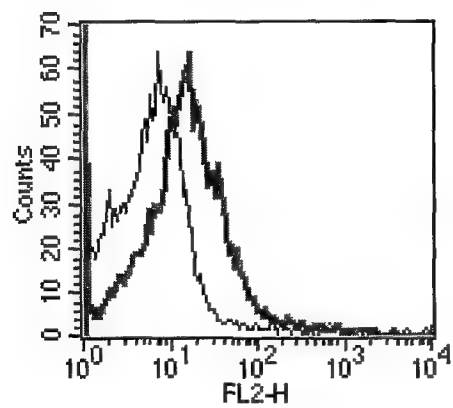
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**FIGURE 95****FIGURE 95A****FIGURE 95B****FIGURE 95C**

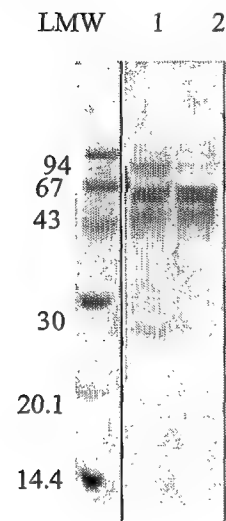
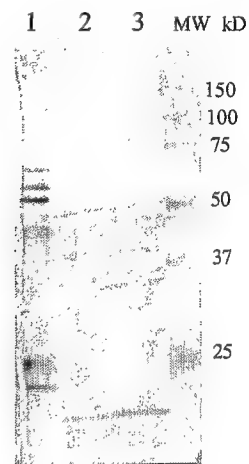
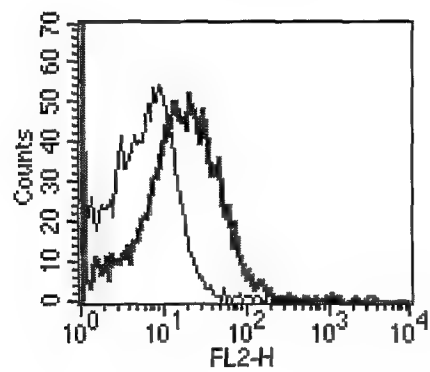
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**FIGURE 96****FIGURE 96A****FIGURE 96B****FIGURE 96C**

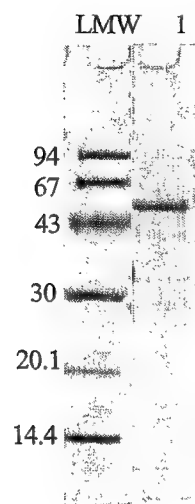
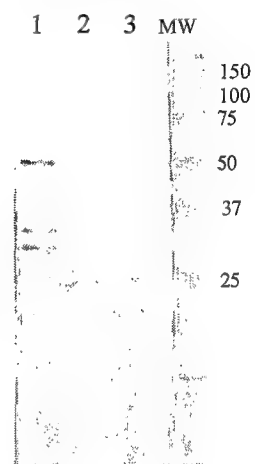
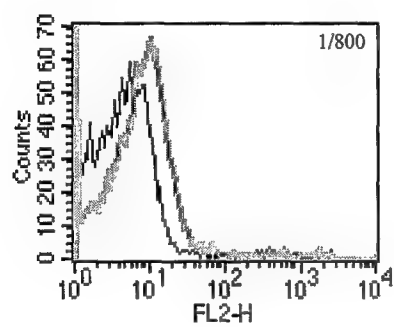
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**FIGURE 97****FIGURE 97A****FIGURE 97B****FIGURE 97C**

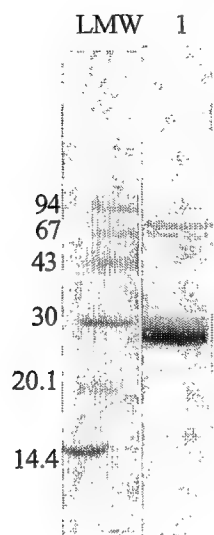
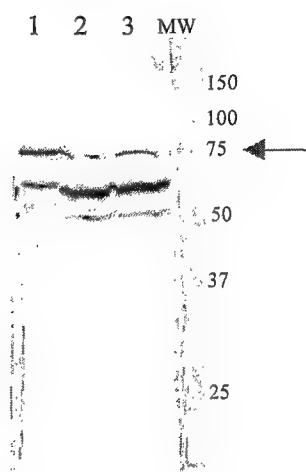
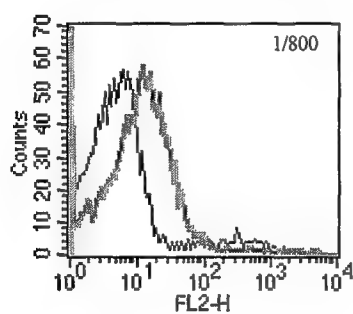
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**FIGURE 98****FIGURE 98A****FIGURE 98B****FIGURE 98C**

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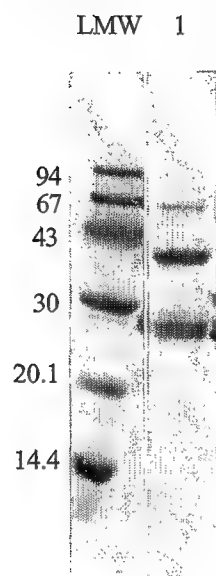
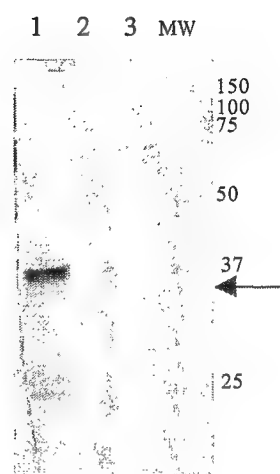
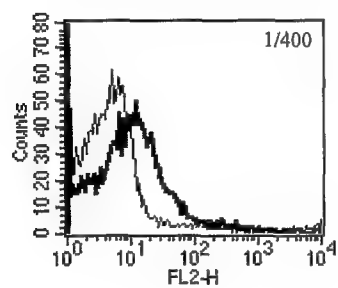
**FIGURE 99****FIGURE 99A****FIGURE 99B****FIGURE 99C**

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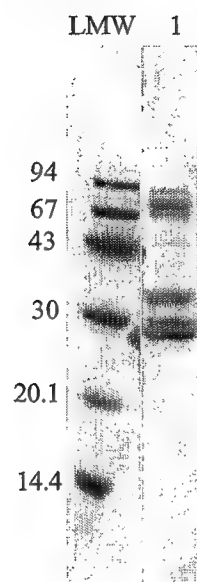
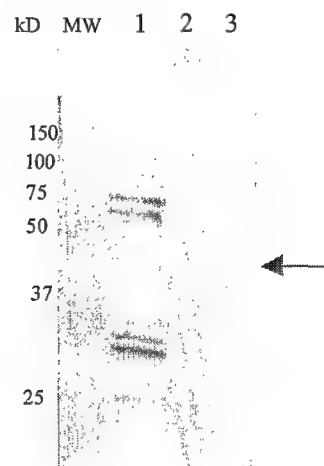
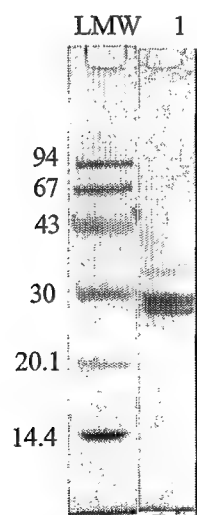
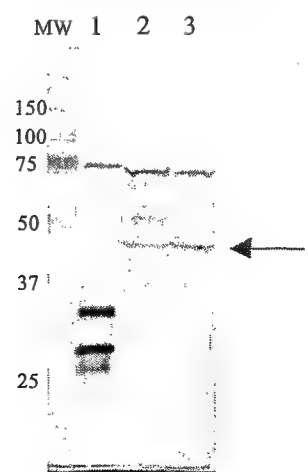
**FIGURE 100****FIGURE 100A****FIGURE 100B****FIGURE 100C**



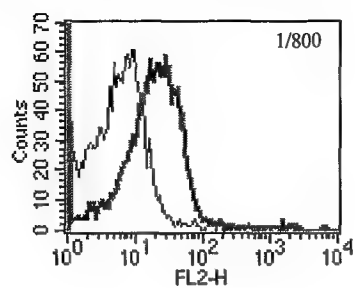
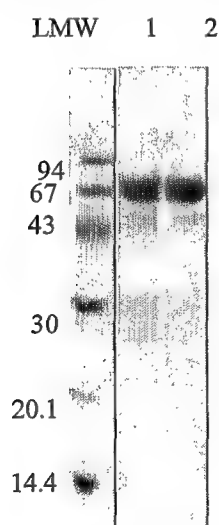
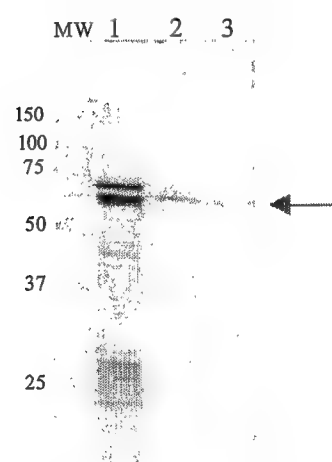
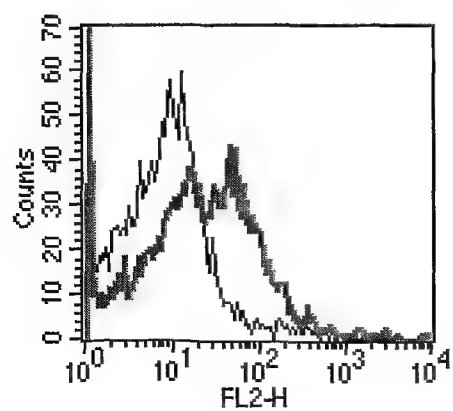
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**FIGURE 101****FIGURE 101A****FIGURE 101B****FIGURE 101C**

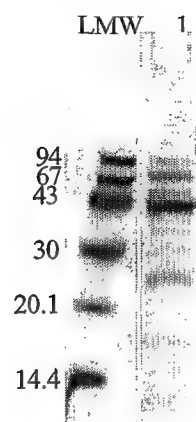
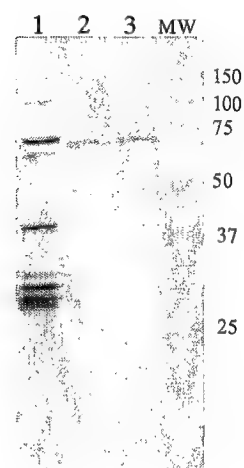
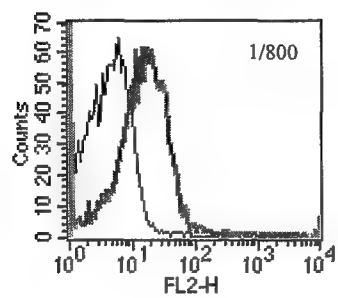
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**FIGURE 102****FIGURE 102A****FIGURE 102B****FIGURE 103****FIGURE 103A****FIGURE 103B**

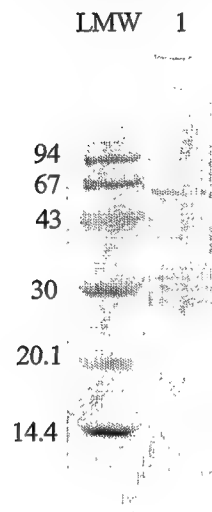
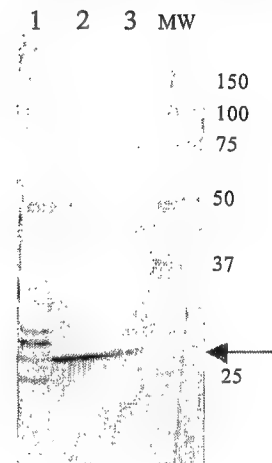
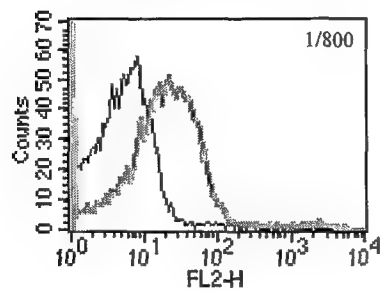
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**FIGURE 103C****FIGURE 104****FIGURE 104A****FIGURE 104B****FIGURE 104C**

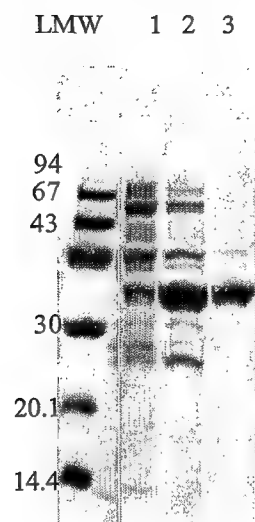
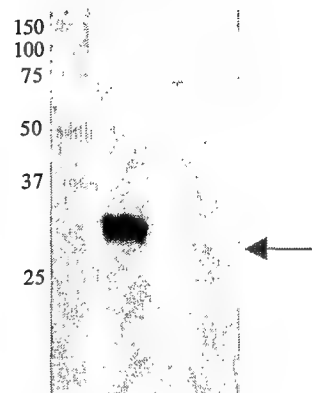
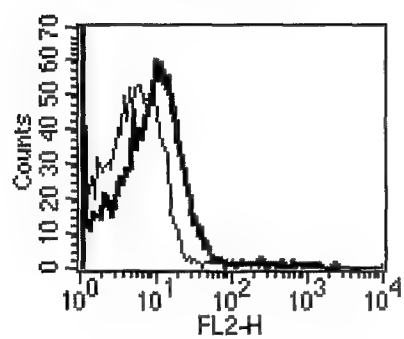
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**FIGURE 105****FIGURE 105A****FIGURE 105B****FIGURE 105C**

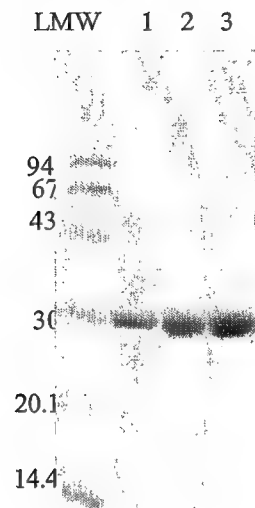
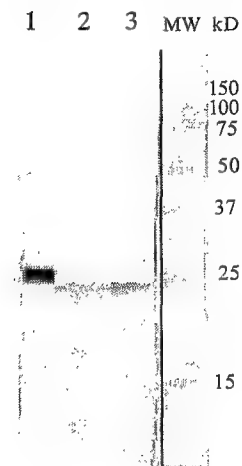
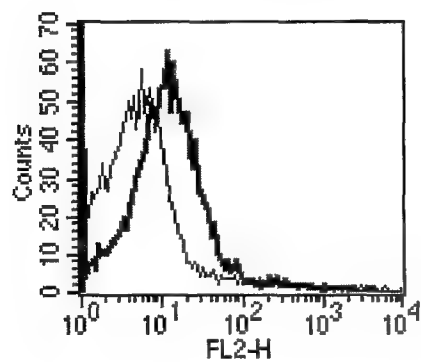
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**FIGURE 106****FIGURE 106A****FIGURE 106B****FIGURE 106C**

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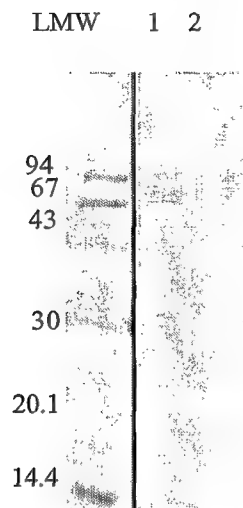
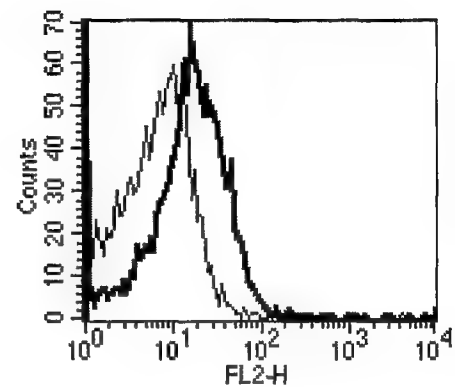
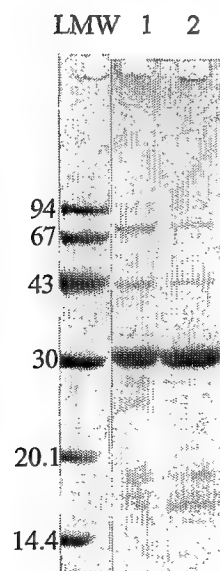
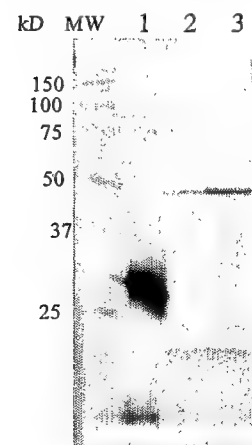
**FIGURE 107****FIGURE 107A****FIGURE 107B****FIGURE 107C**

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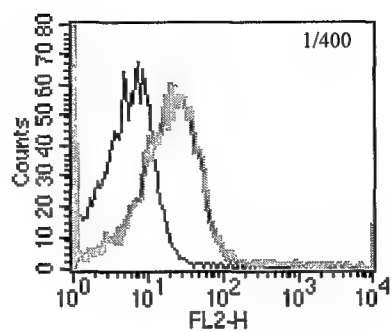
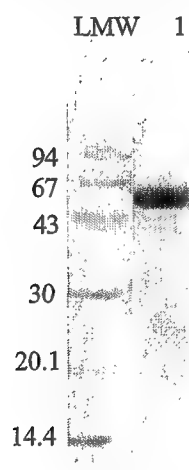
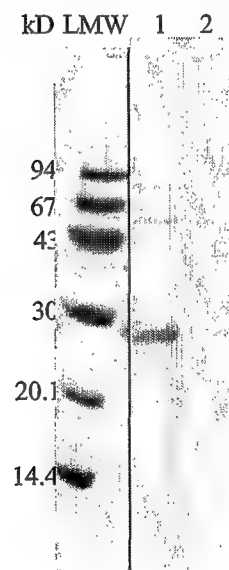
**FIGURE 108****FIGURE 108A****FIGURE 108B****FIGURE 108C**



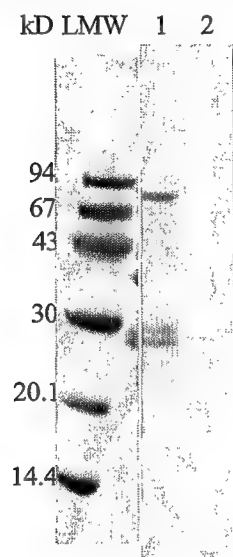
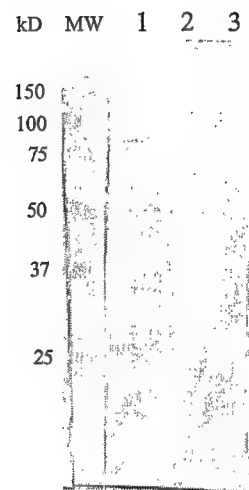
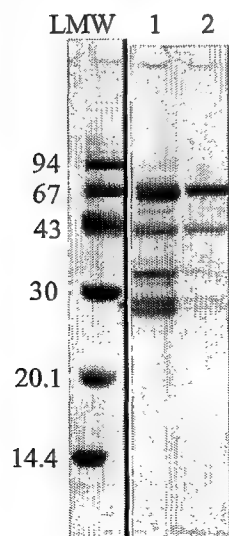
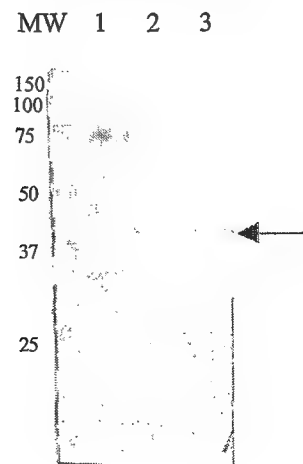
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**FIGURE 109****FIGURE 109A****FIGURE 109B****FIGURE 110****FIGURE 110A****FIGURE 110B**

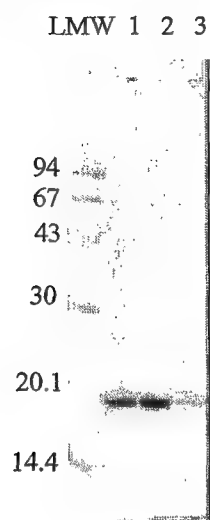
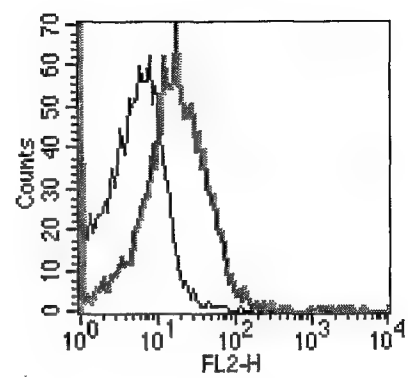
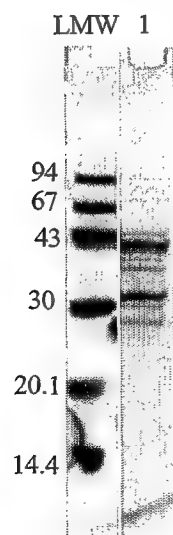
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**FIGURE 110C****FIGURE 111****FIGURE 113**

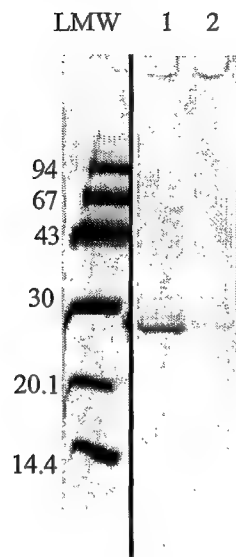
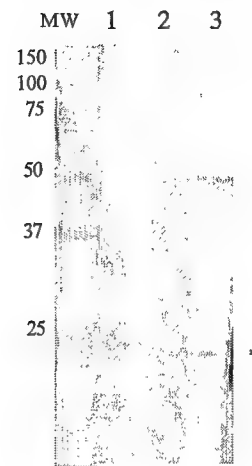
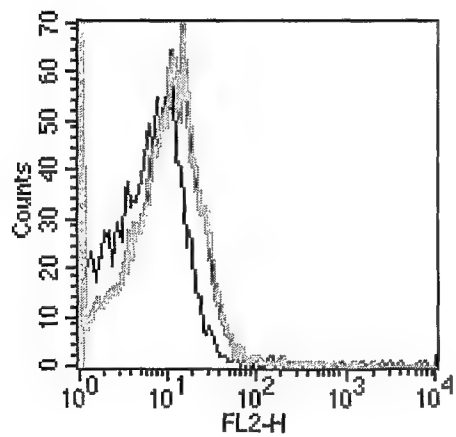
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**FIGURE 112****FIGURE 112A****FIGURE 112B****FIGURE 114****FIGURE 114A****FIGURE 114B**

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**FIGURE 115****FIGURE 115A****FIGURE 115B****FIGURE 116****FIGURE 116A**

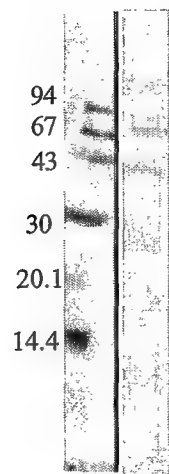
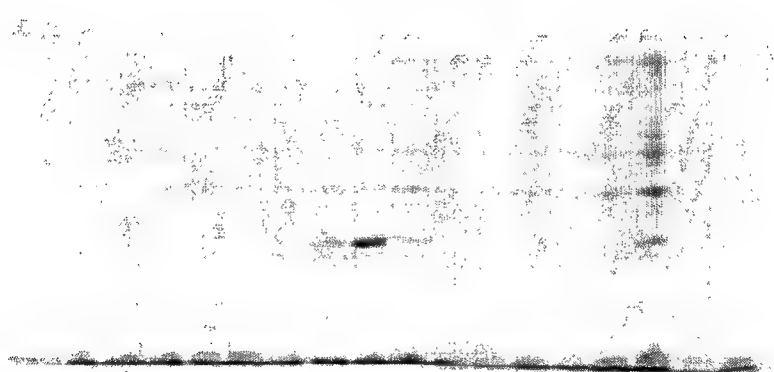
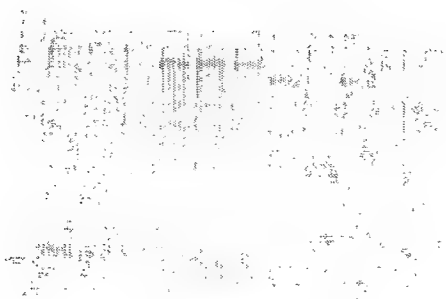
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**FIGURE 117****FIGURE 117A****FIGURE 117B****FIGURE 117C**

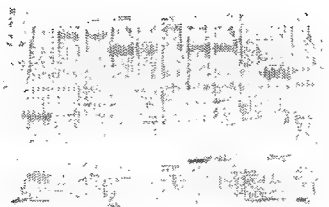
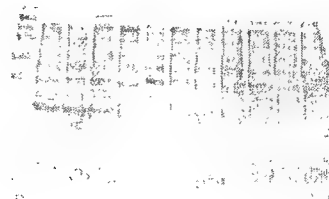
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**FIGURE 118**

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**FIGURE 119****FIGURE 120**

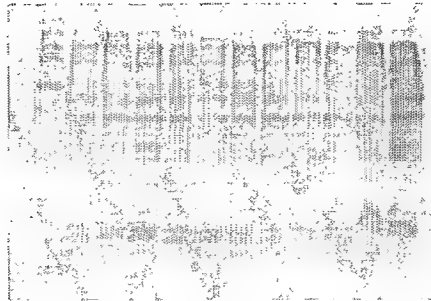
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**FIGURE 121****FIGURE 122****FIGURE 123****FIGURE 124**



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**FIGURE 125**



**FIGURE 126**



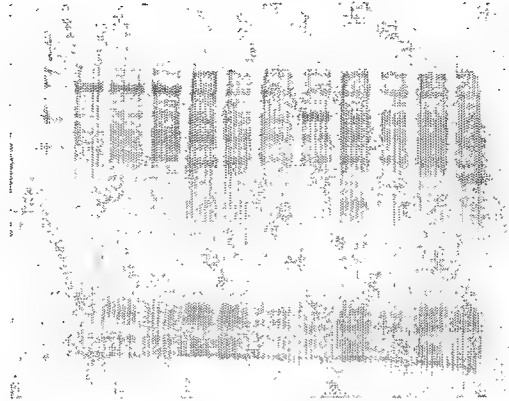
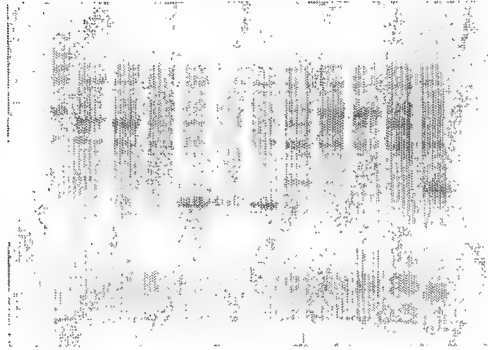
**FIGURE 127**



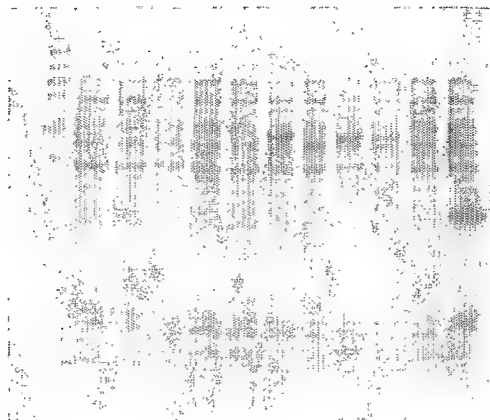
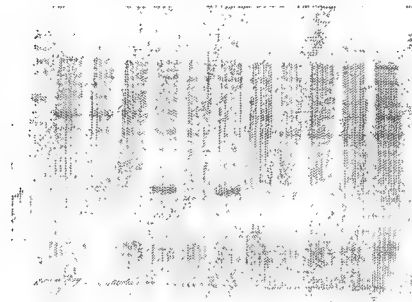
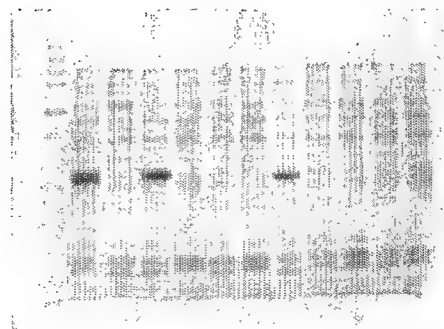
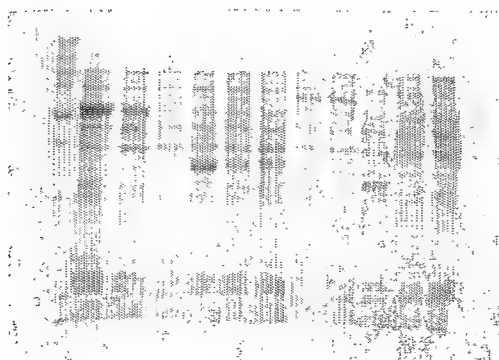
**FIGURE 128**



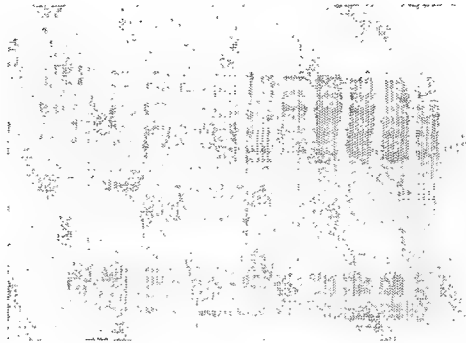
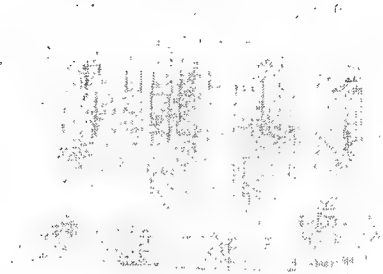
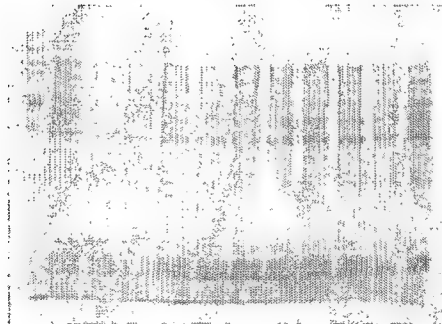
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**FIGURE 129****FIGURE 130****FIGURE 131**

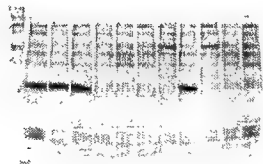
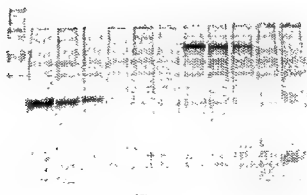
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**FIGURE 132****FIGURE 133****FIGURE 134****FIGURE 135**

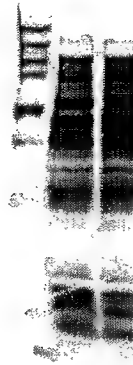
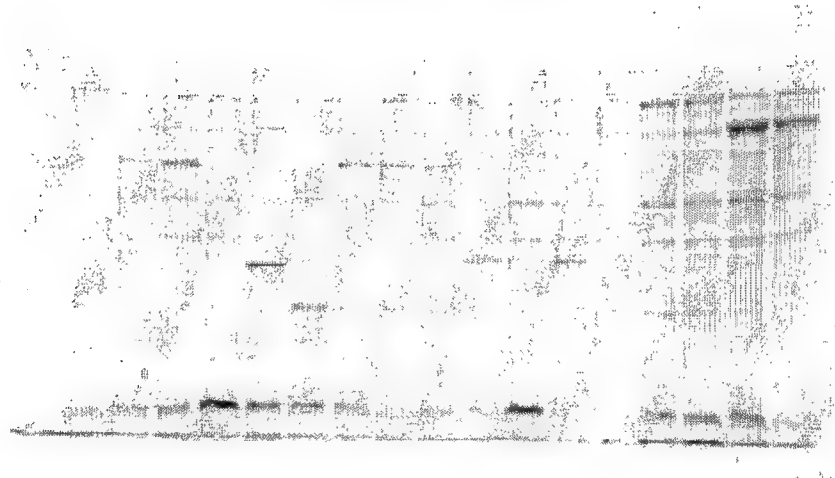
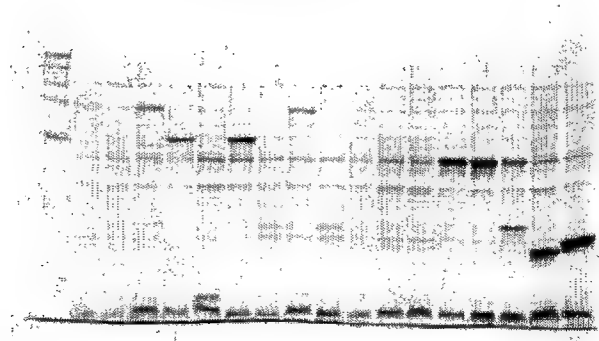
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**FIGURE 136****FIGURE 137****FIGURE 138****FIGURE 139**

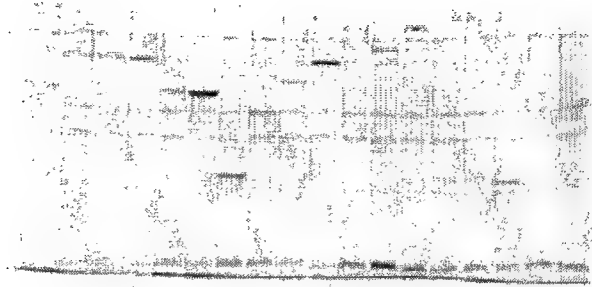
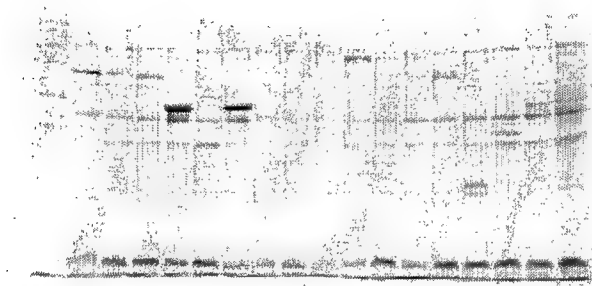
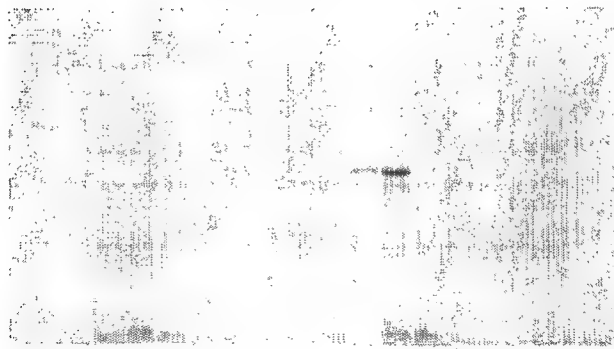
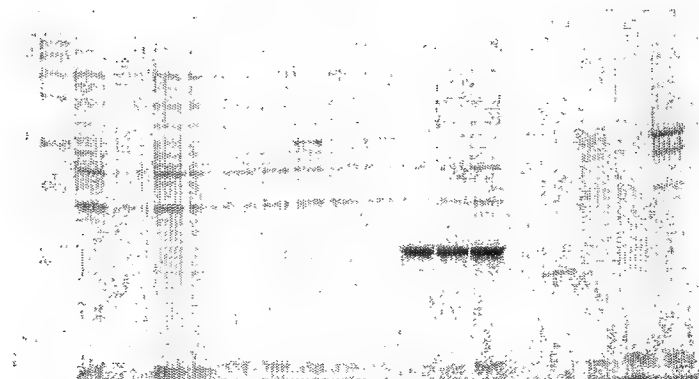
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**FIGURE 140****FIGURE 141****FIGURE 142****FIGURE 143**

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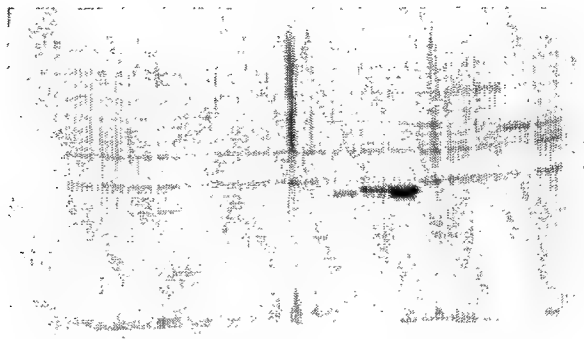
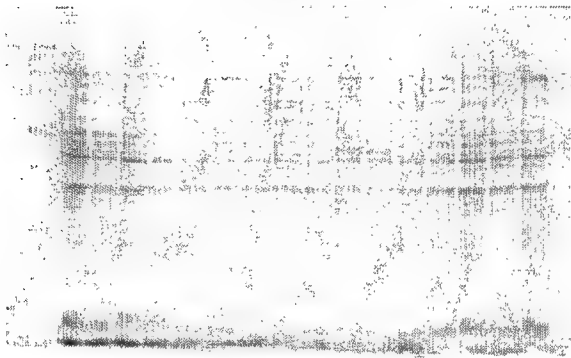
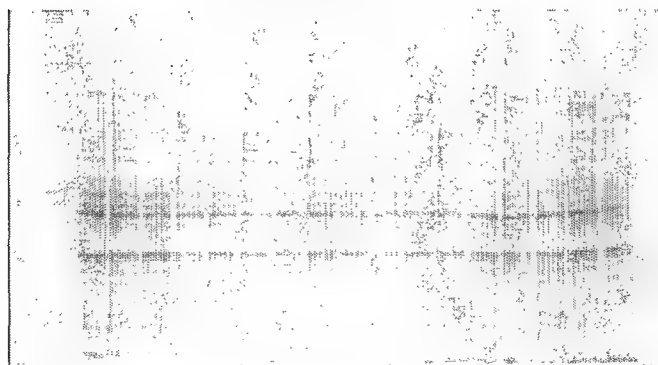
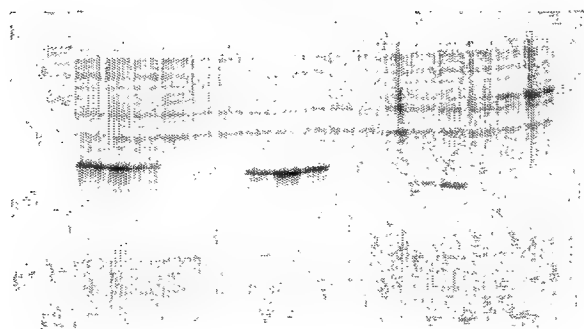
**FIGURE 144****FIGURE 145****FIGURE 146**

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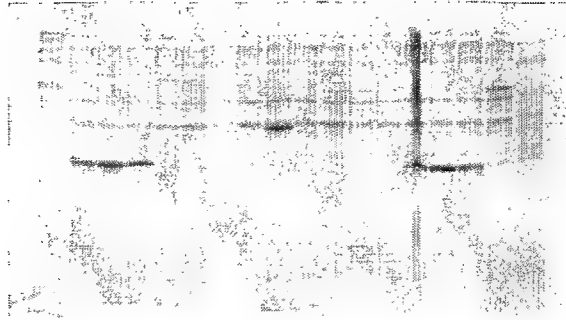
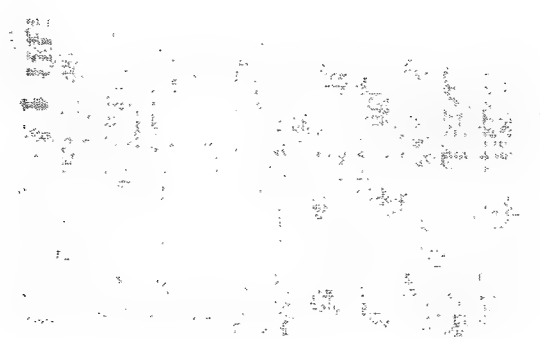
**FIGURE 147****FIGURE 148****FIGURE 149****FIGURE 150**



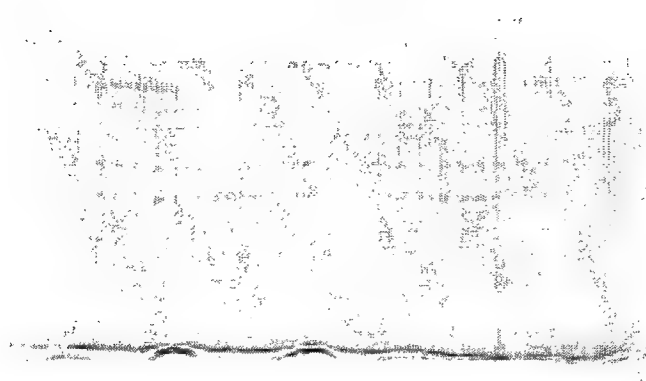
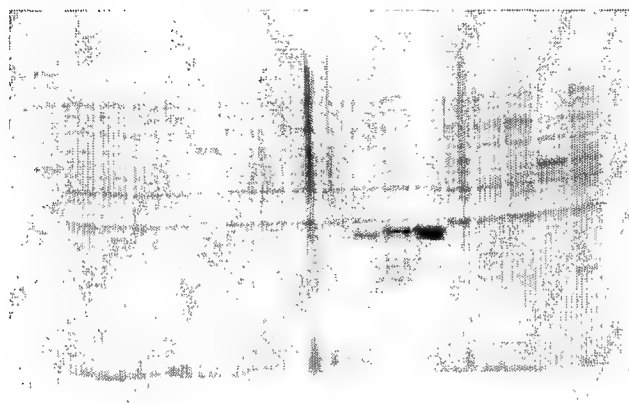
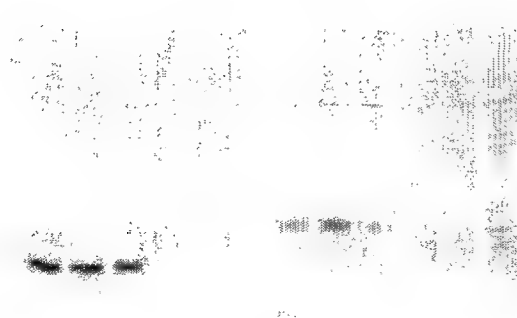
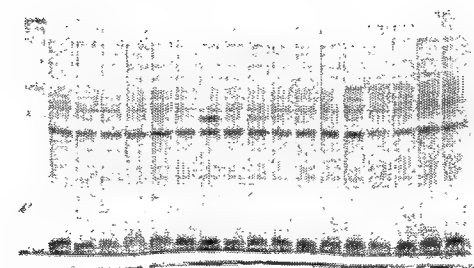
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**FIGURE 151****FIGURE 152****FIGURE 153****FIGURE 154**

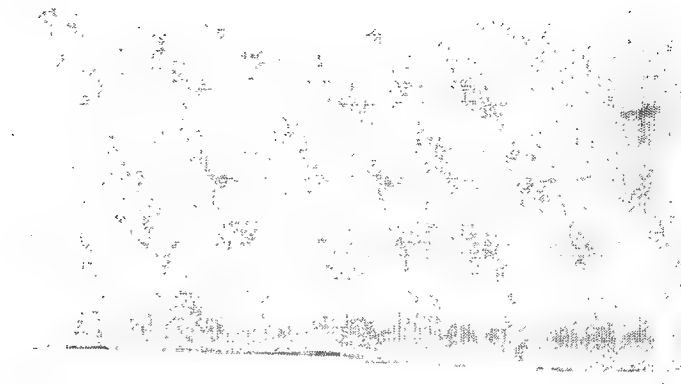
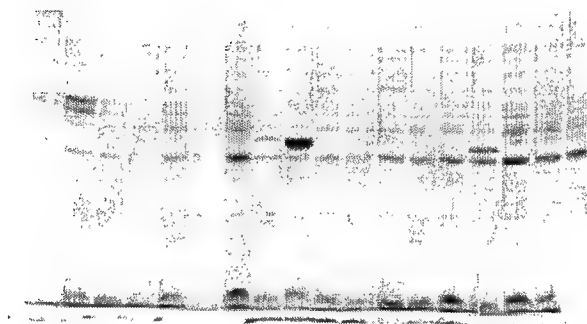
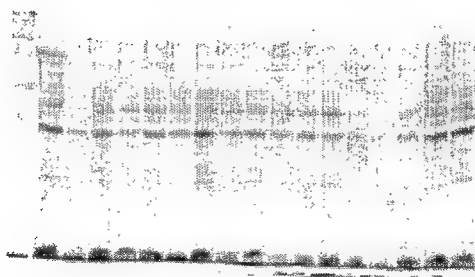
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**FIGURE 155****FIGURE 156****FIGURE 157****FIGURE 158**

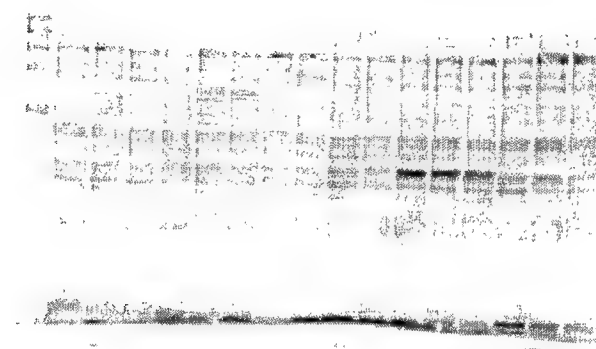
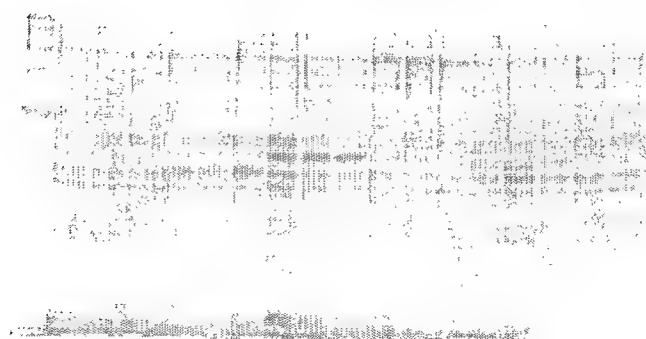
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**FIGURE 159****FIGURE 160****FIGURE 161****FIGURE 162**

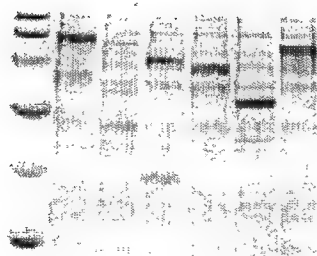
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**FIGURE 163****FIGURE 164****FIGURE 165**

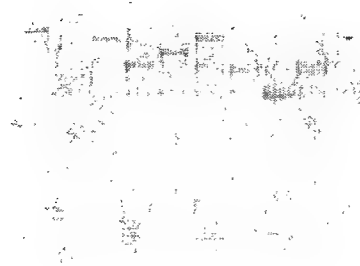
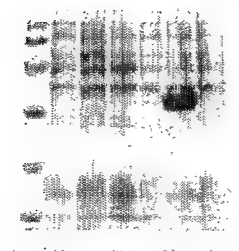
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**FIGURE 166****FIGURE 167****FIGURE 168**

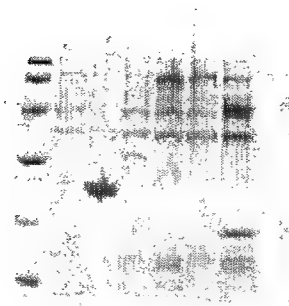
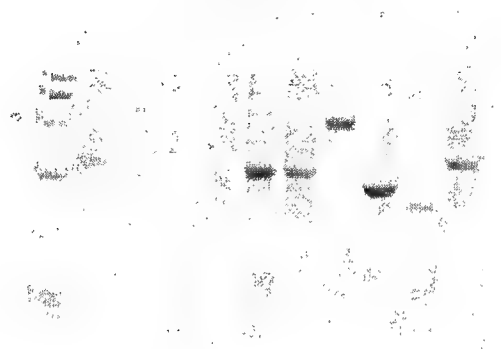
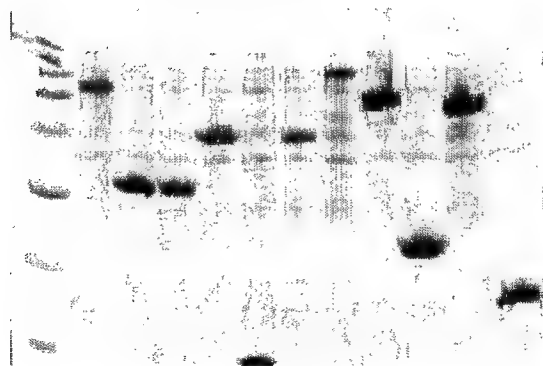
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**FIGURE 169****FIGURE 170****FIGURE 171****FIGURE 172**

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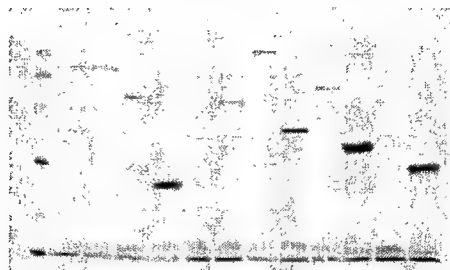
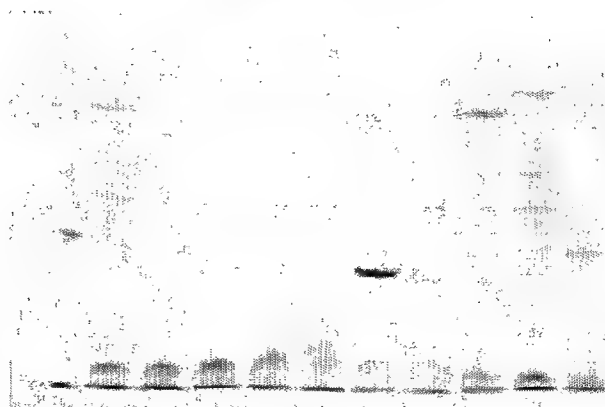
**FIGURE 173****FIGURE 174****FIGURE 175****FIGURE 176**

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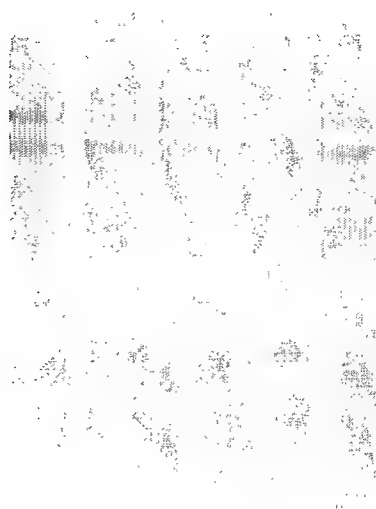
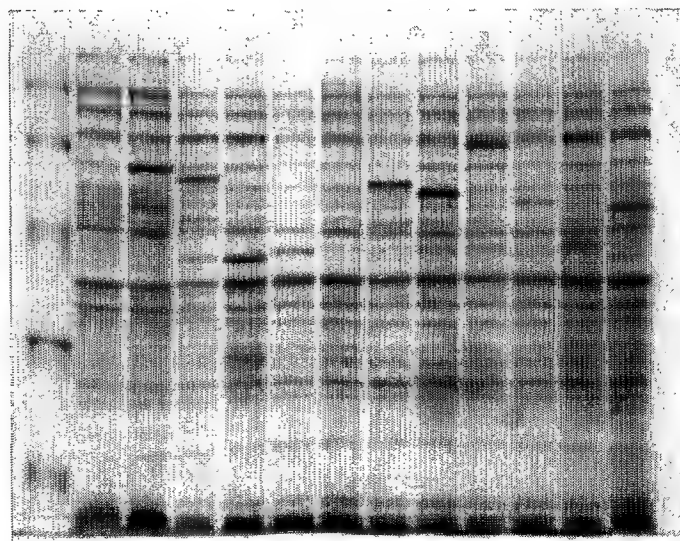
**FIGURE 177****FIGURE 178****FIGURE 179****FIGURE 180**



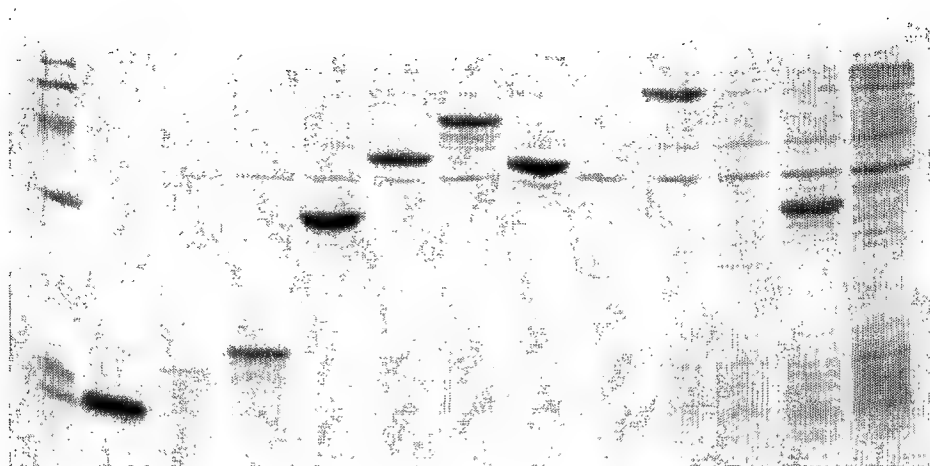
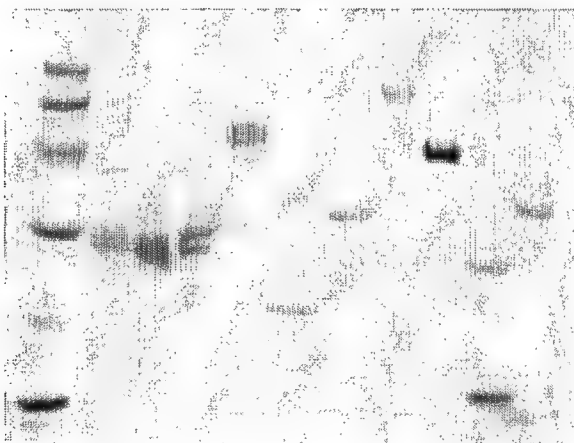
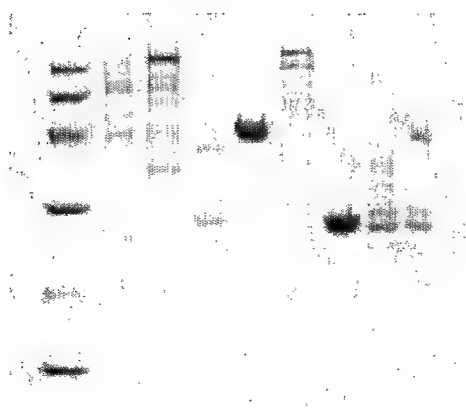
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**FIGURE 181****FIGURE 182****FIGURE 183****FIGURE 184**

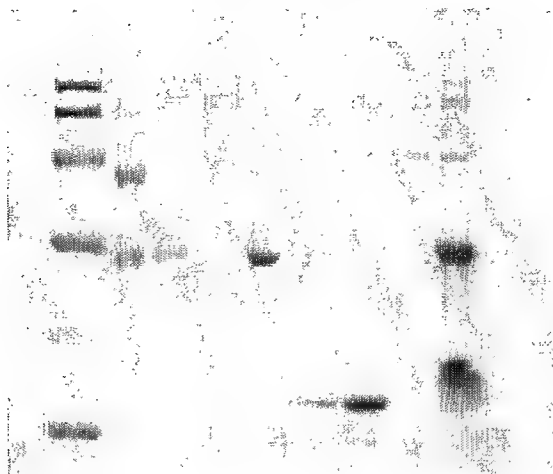
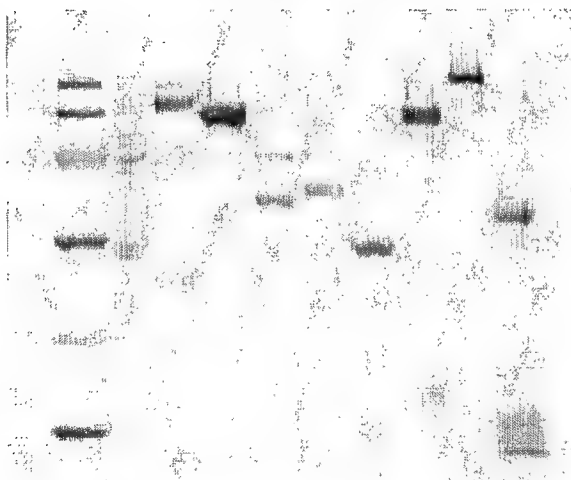
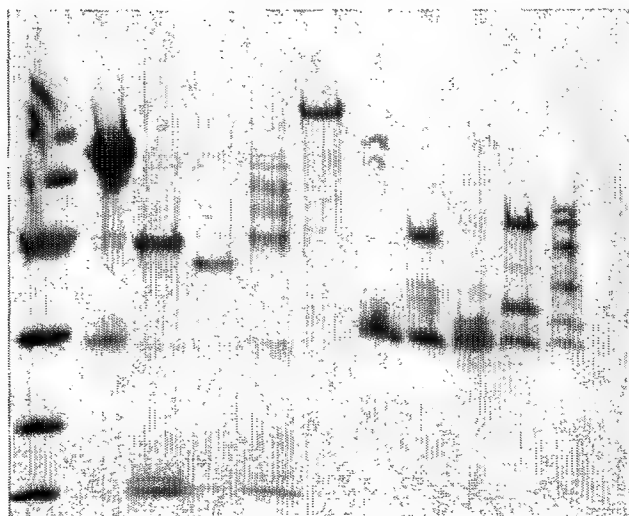
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**FIGURE 185****FIGURE 186****FIGURE 187**

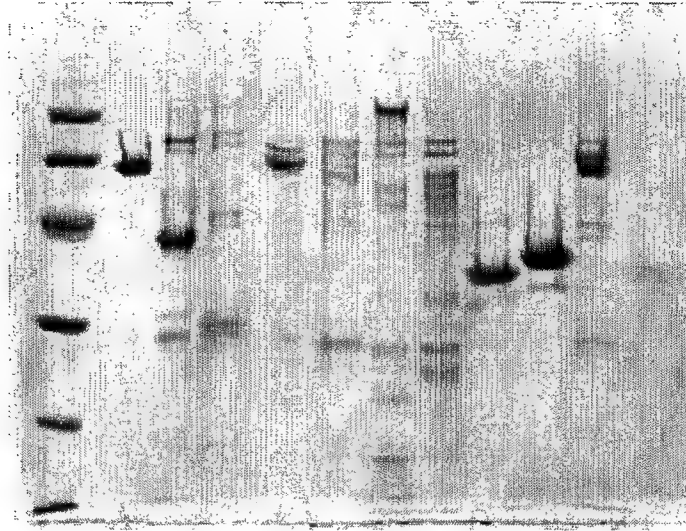
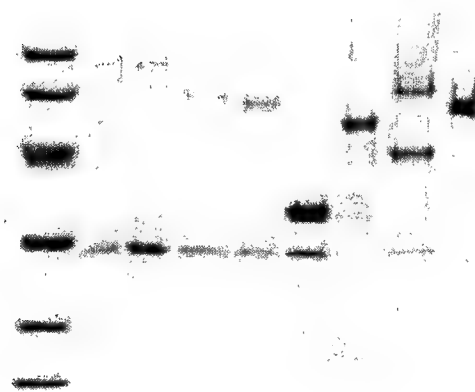
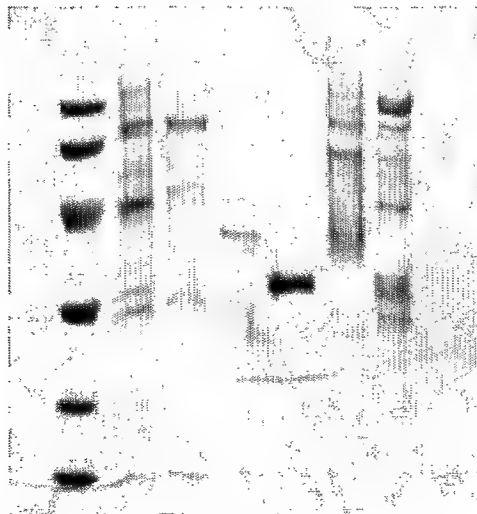
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**FIGURE 188****FIGURE 189****FIGURE 190**

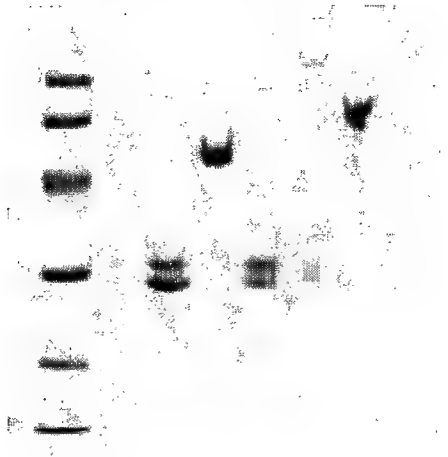
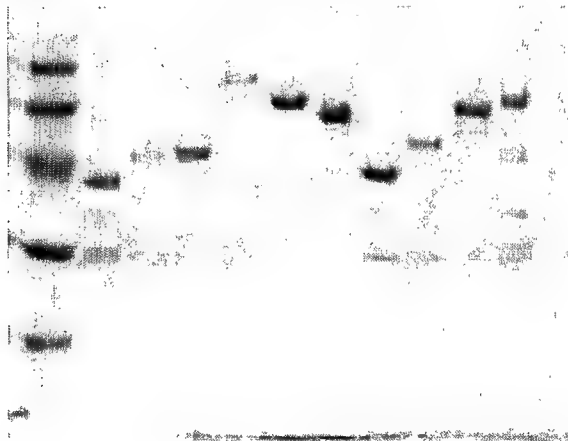
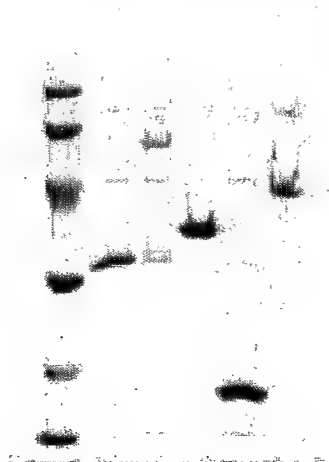
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**FIGURE 191****FIGURE 192****FIGURE 193**

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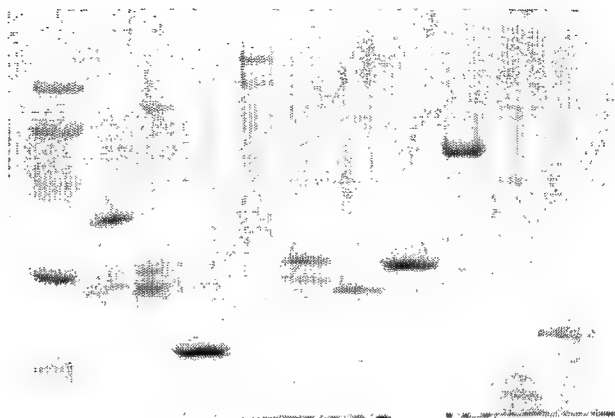
**FIGURE 194****FIGURE 195****FIGURE 196**

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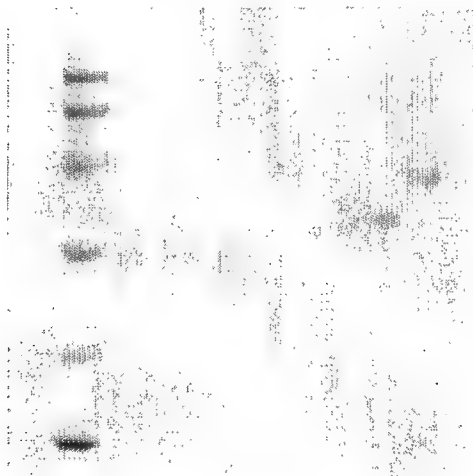
**FIGURE 197****FIGURE 198****FIGURE 199**

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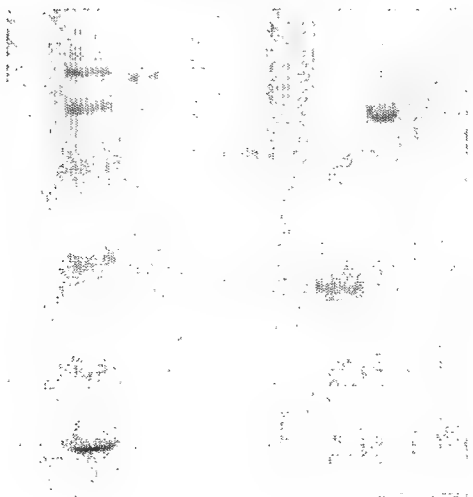
**FIGURE 200**



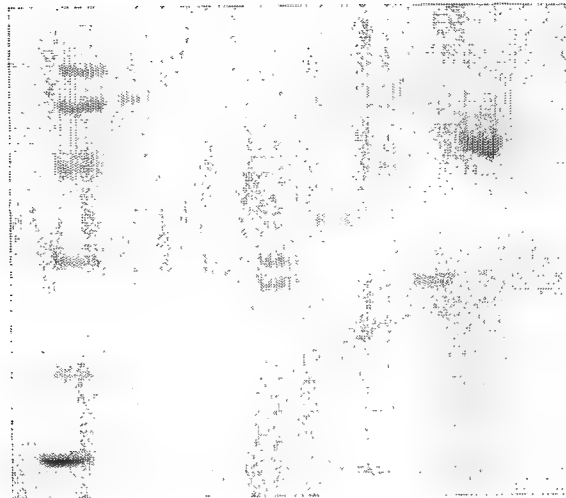
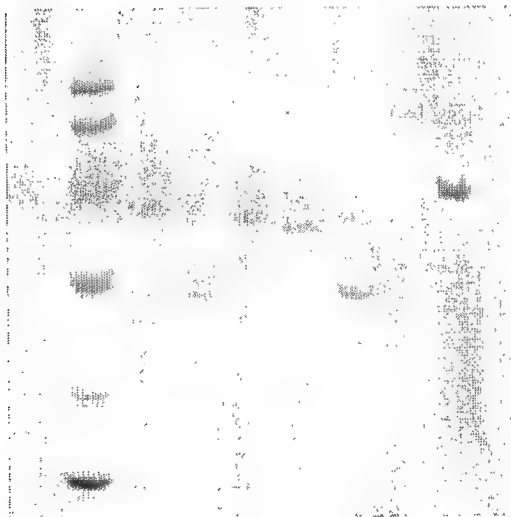
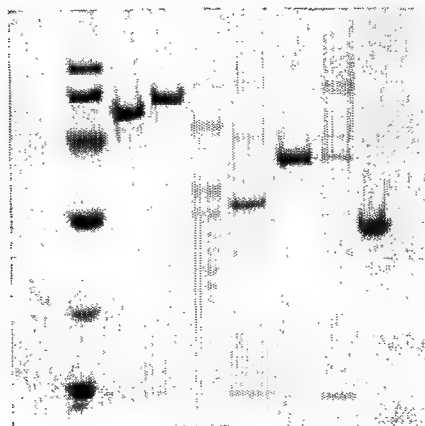
**FIGURE 201**



**FIGURE 202**

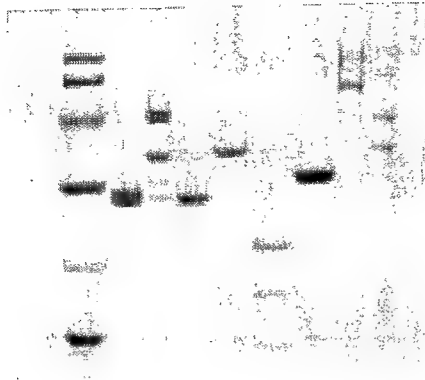
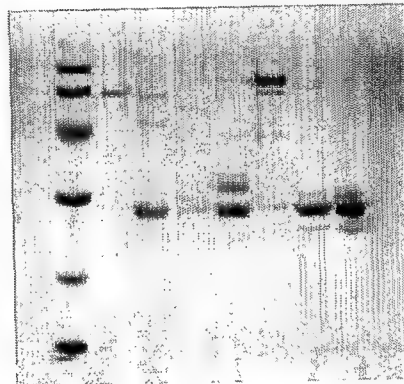
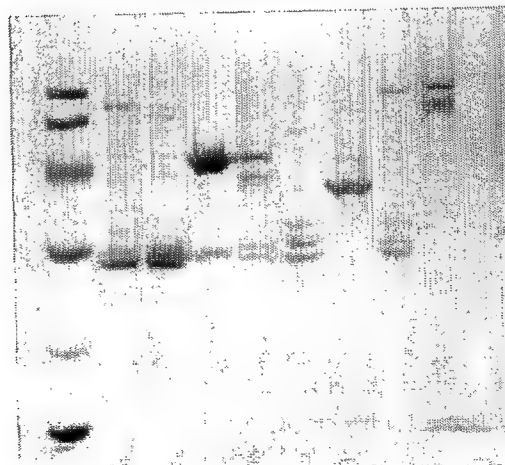


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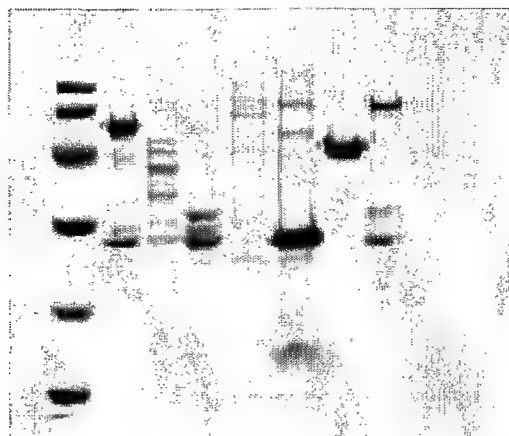
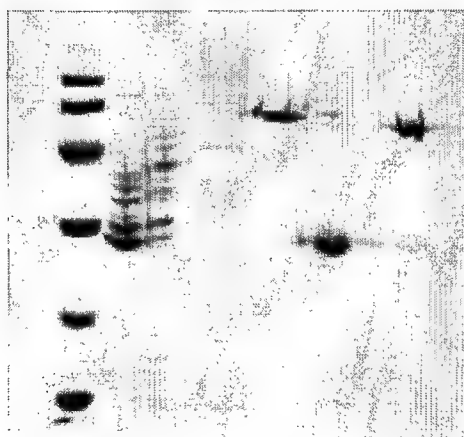
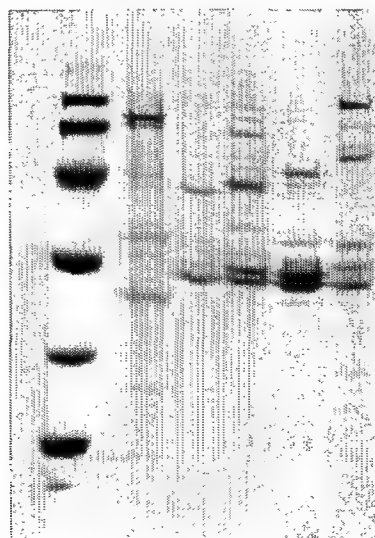
**FIGURE 203****FIGURE 204****FIGURE 205**



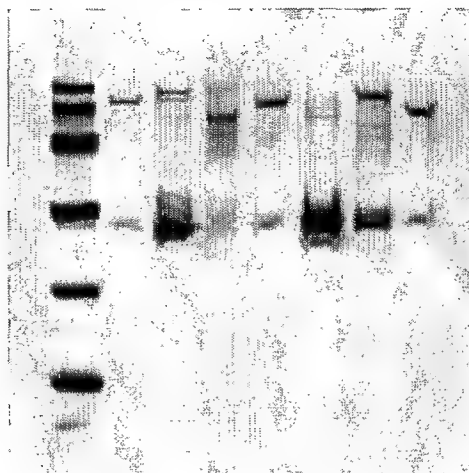
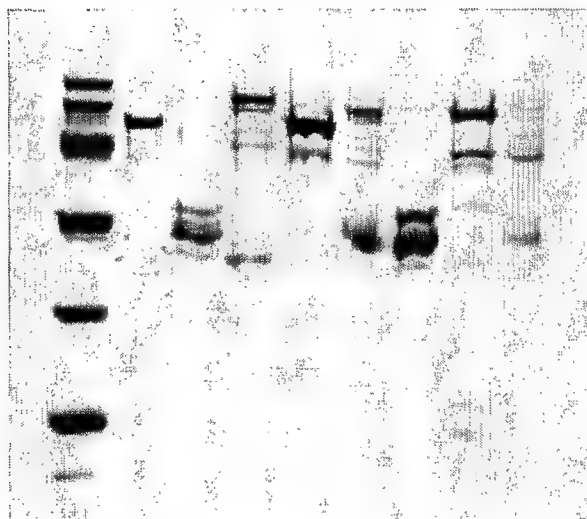
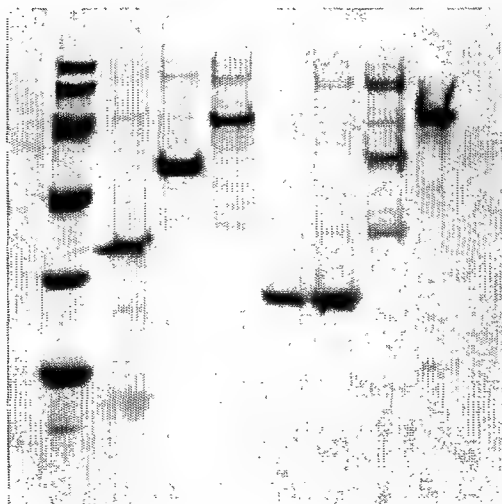
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**FIGURE 206****FIGURE 207****FIGURE 208**

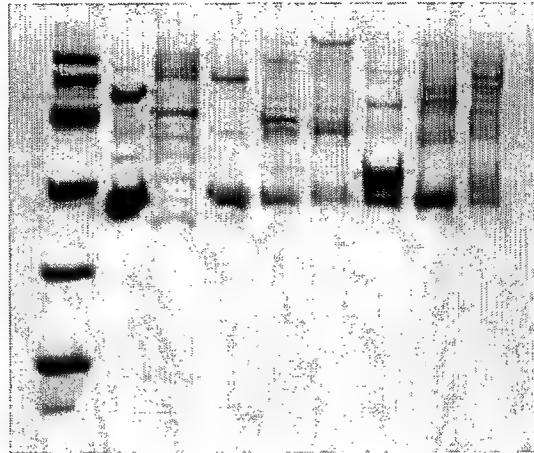
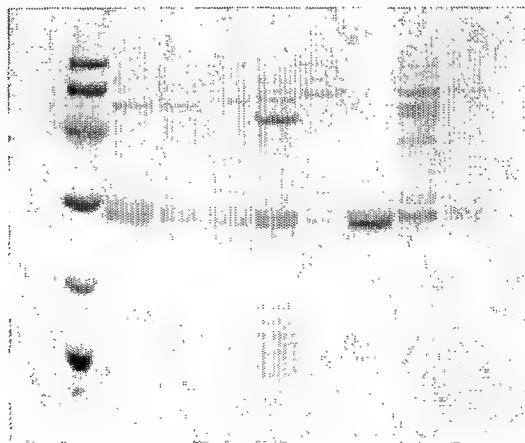
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**FIGURE 209****FIGURE 210****FIGURE 211**

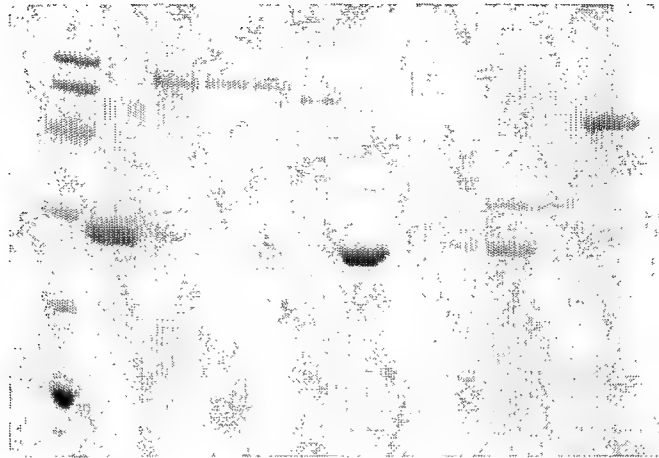
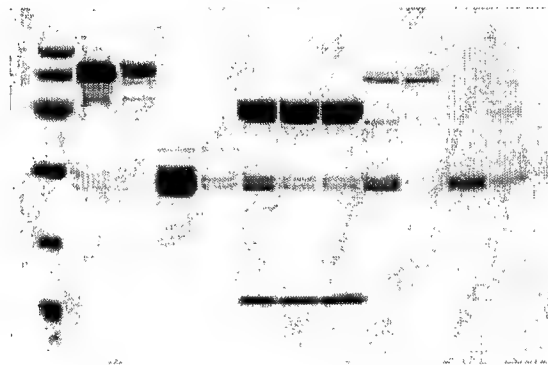
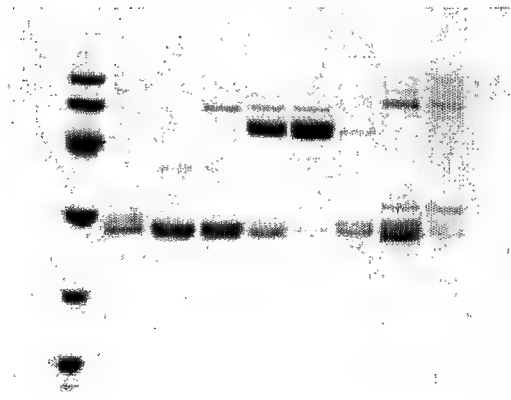
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**FIGURE 212****FIGURE 213****FIGURE 214**

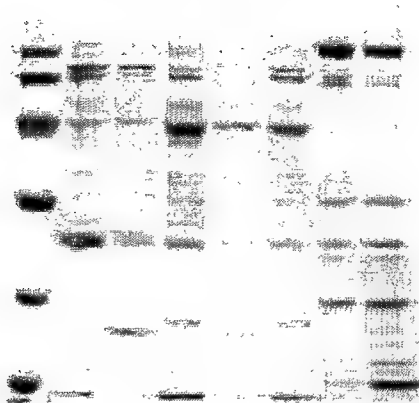
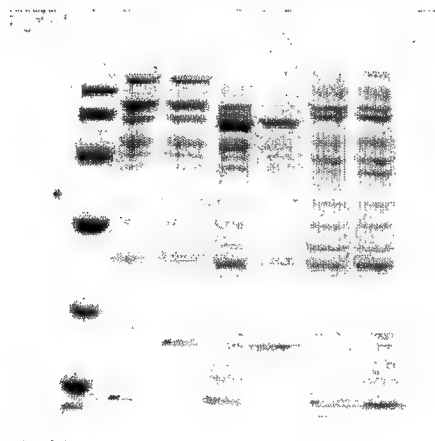
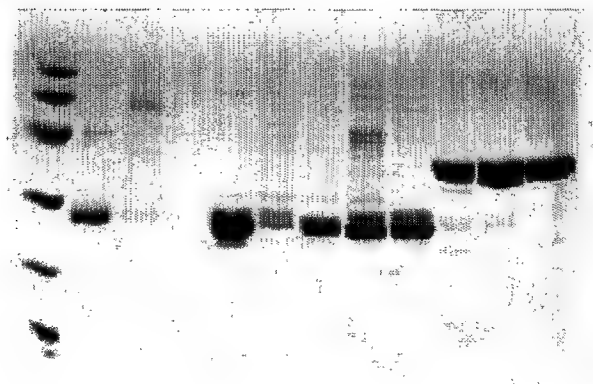
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**FIGURE 215****FIGURE 216****FIGURE 217**

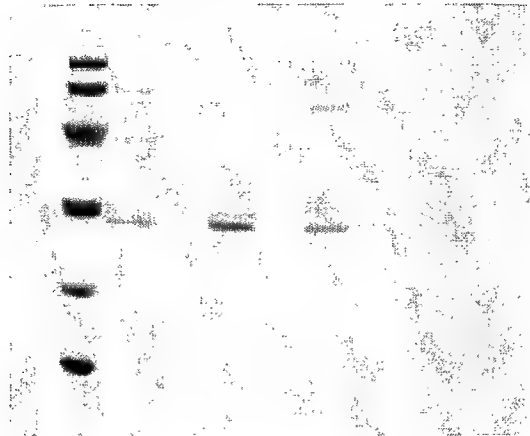
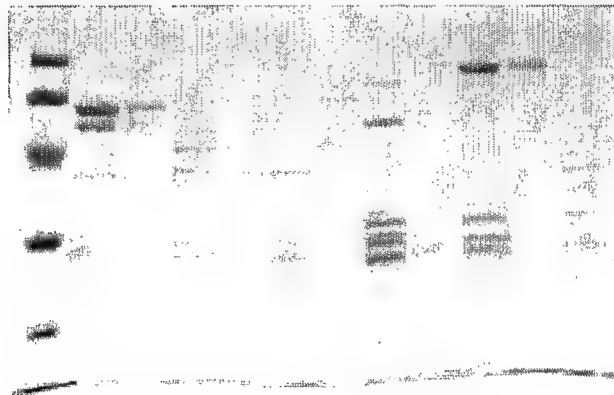
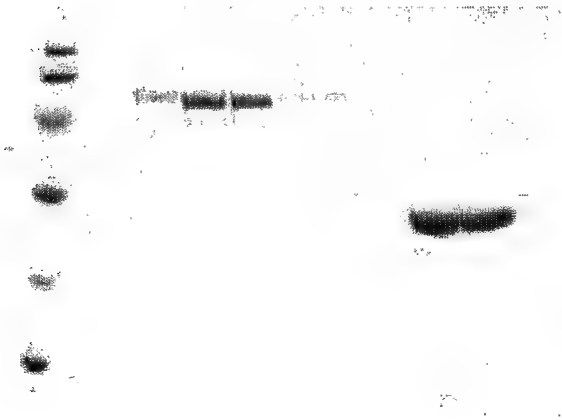
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**FIGURE 218****FIGURE 219****FIGURE 220**

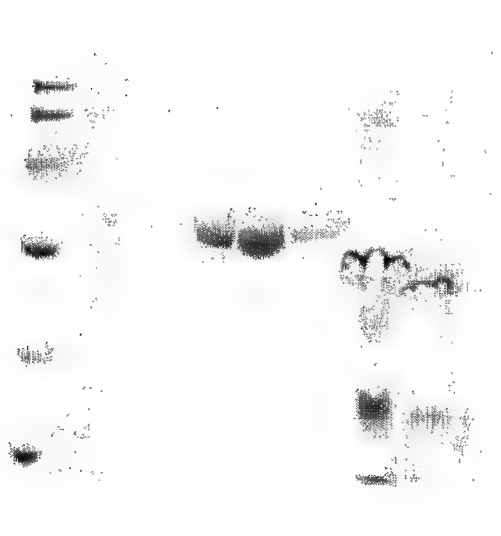
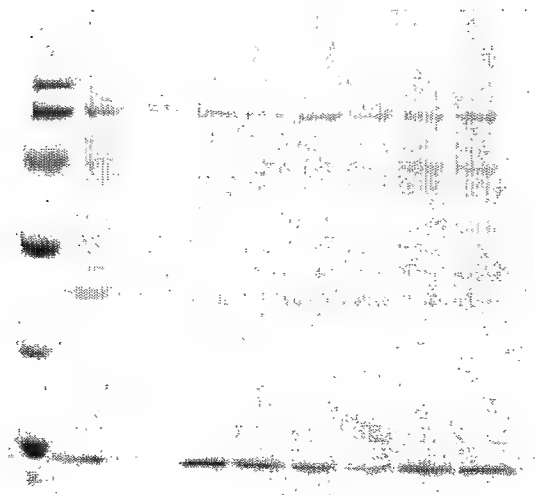
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**FIGURE 221****FIGURE 222****FIGURE 223**

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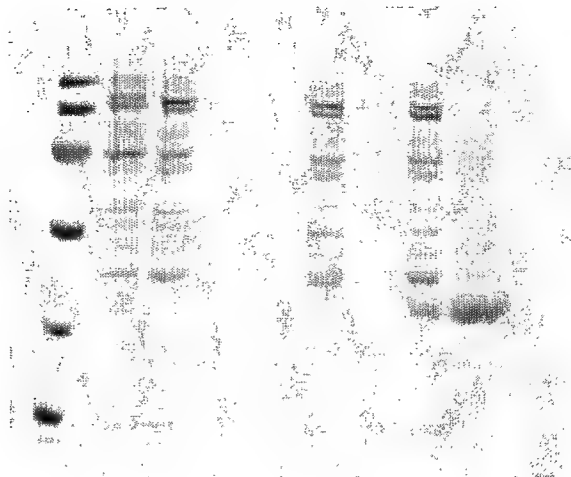
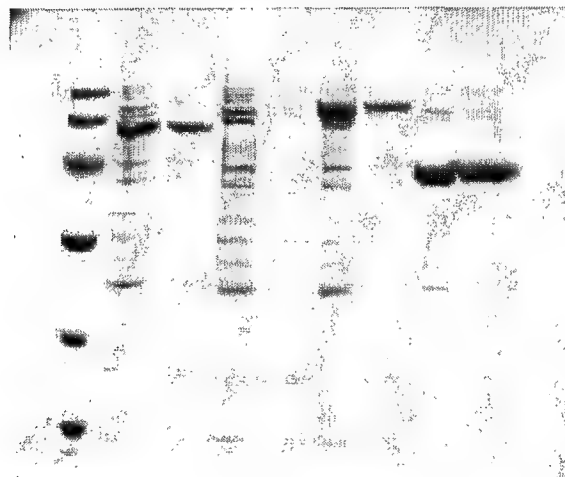
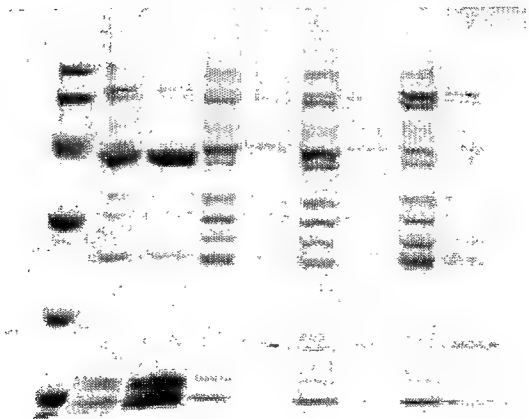
**FIGURE 224****FIGURE 225****FIGURE 226**

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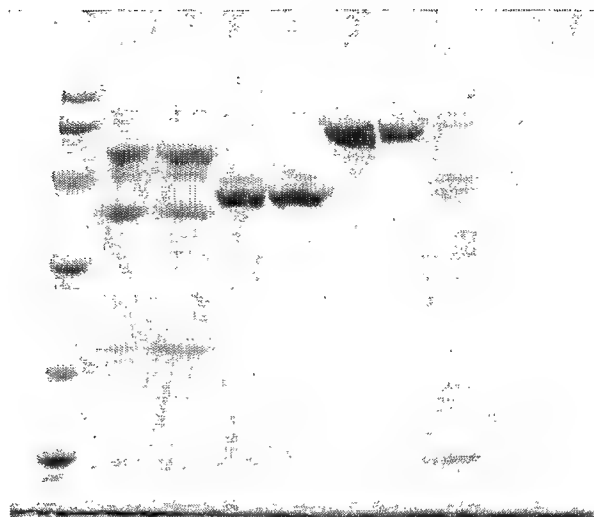
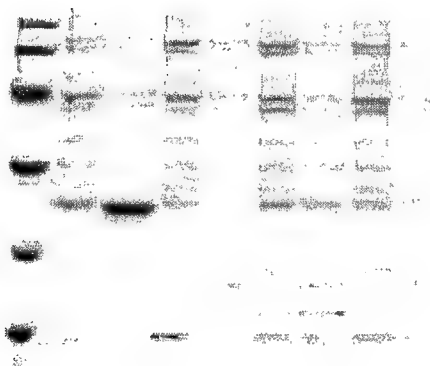
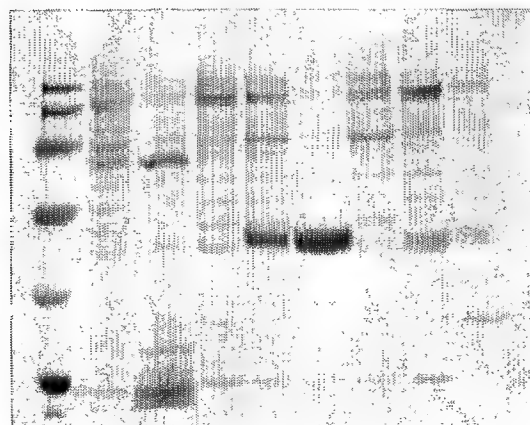
**FIGURE 227****FIGURE 228****FIGURE 229**



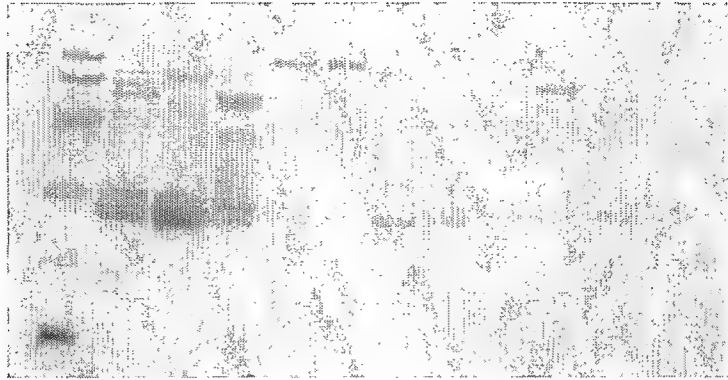
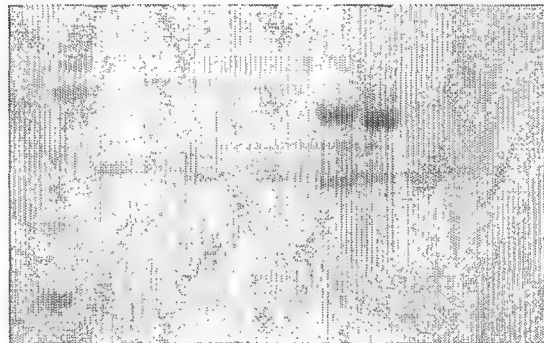
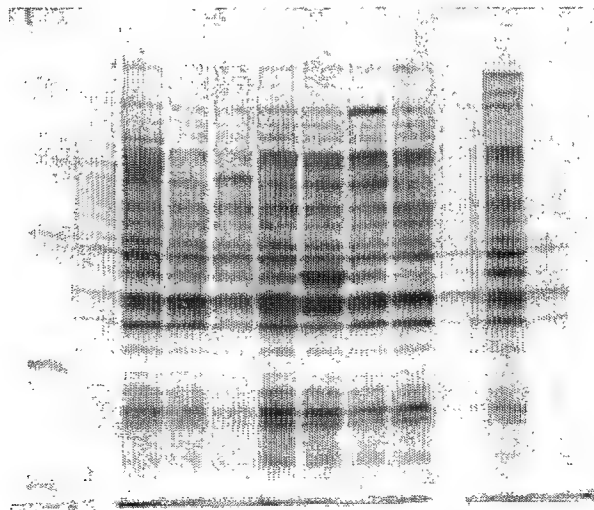
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**FIGURE 230****FIGURE 231****FIGURE 232**

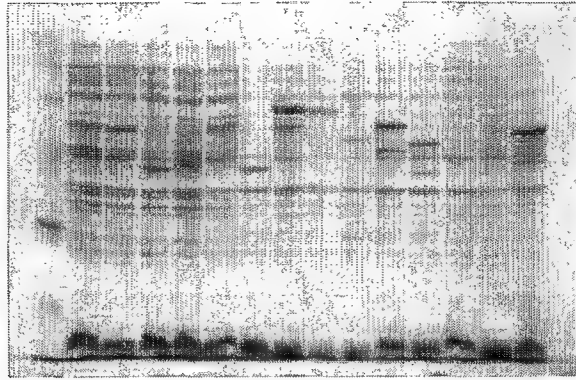
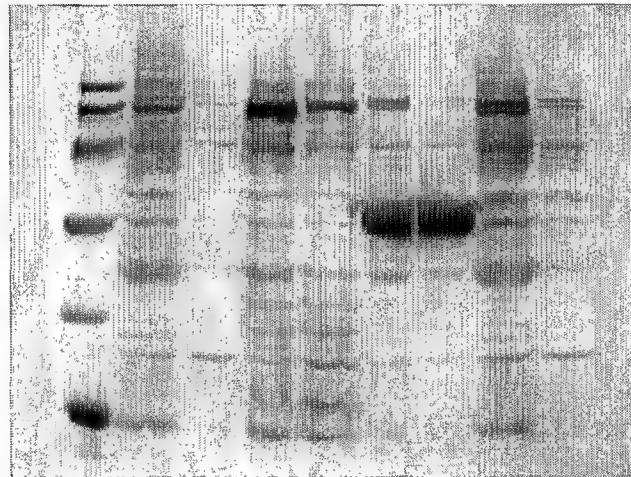
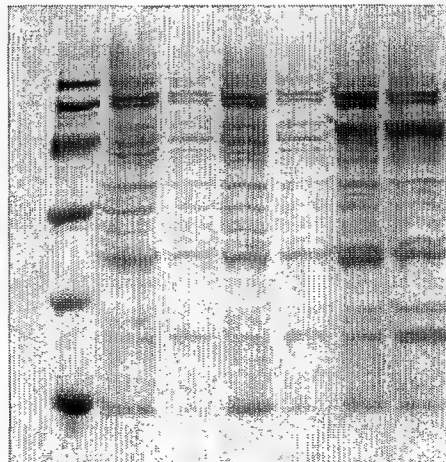
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**FIGURE 233****FIGURE 234****FIGURE 235**

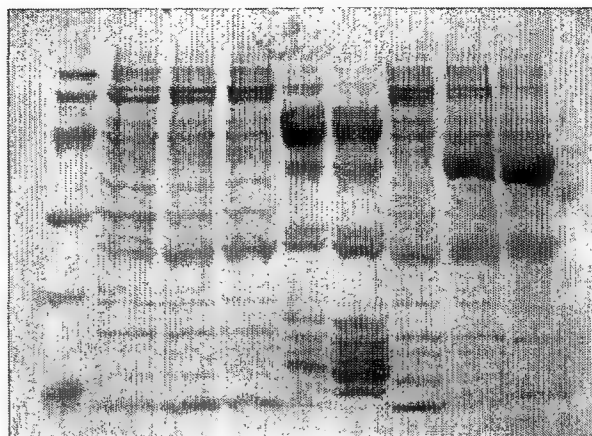
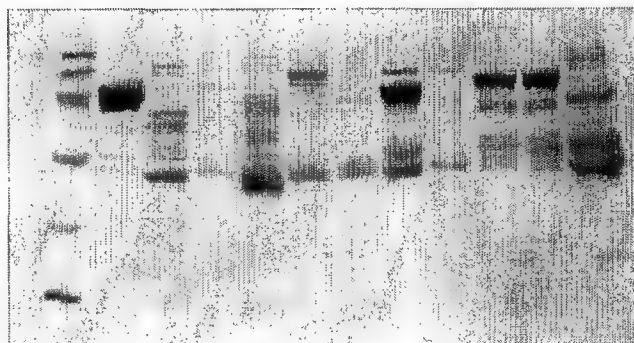
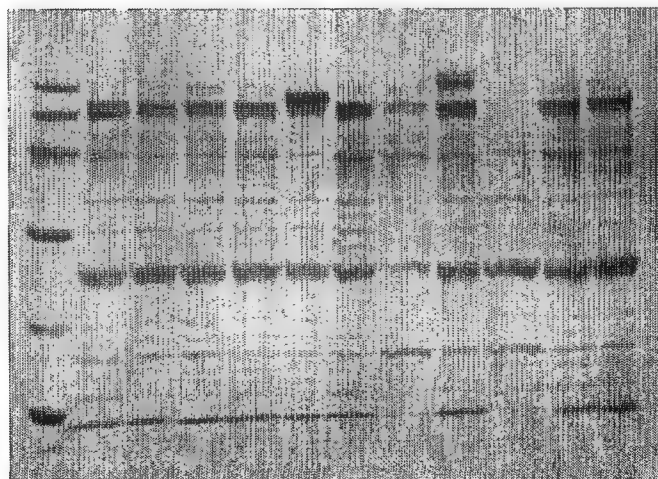
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**FIGURE 236****FIGURE 237****FIGURE 238**

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**FIGURE 239****FIGURE 240****FIGURE 241**

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**FIGURE 242****FIGURE 243****FIGURE 244**

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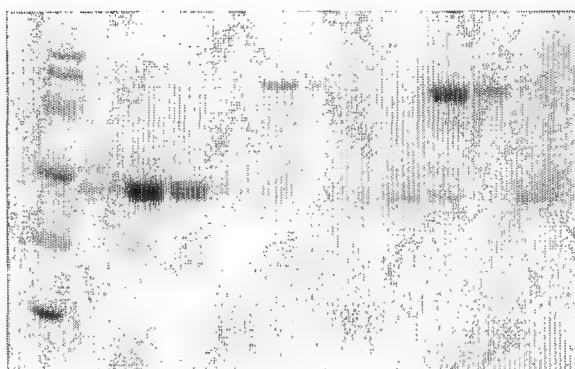
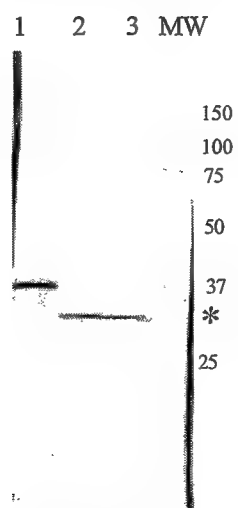
**FIGURE 245****FIGURE 246****FIGURE 247**

FIGURE 248

FIGURE 248A

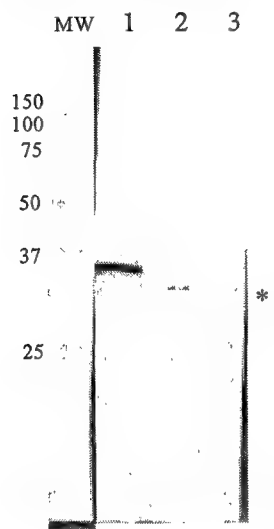


FIGURE 248B

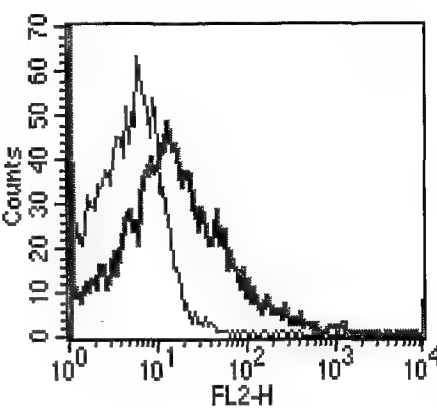


FIGURE 249

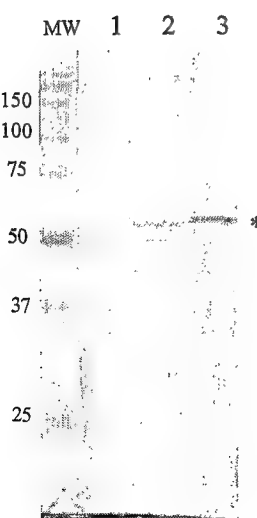


FIGURE 250

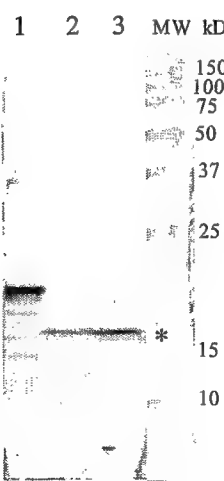
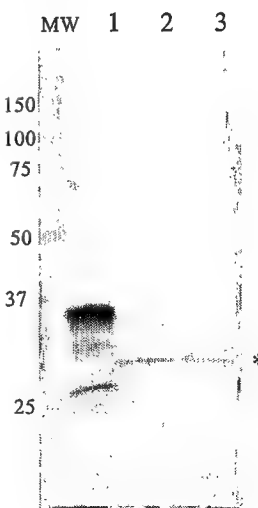
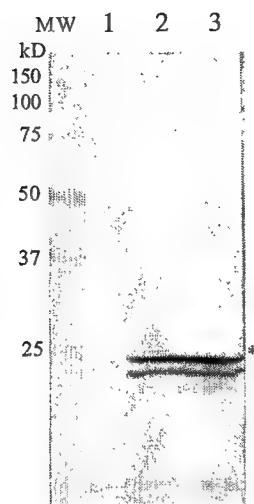
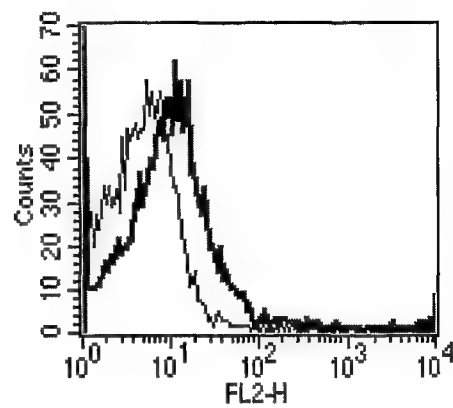
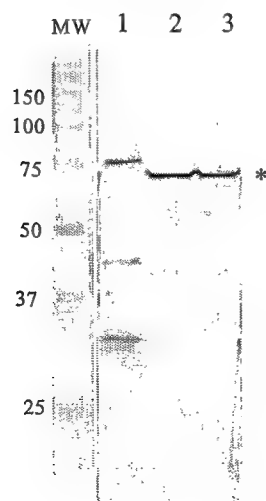


FIGURE 251

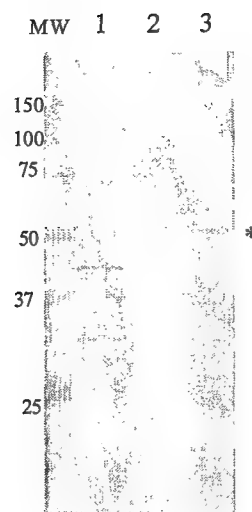
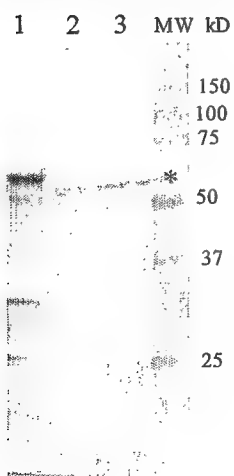
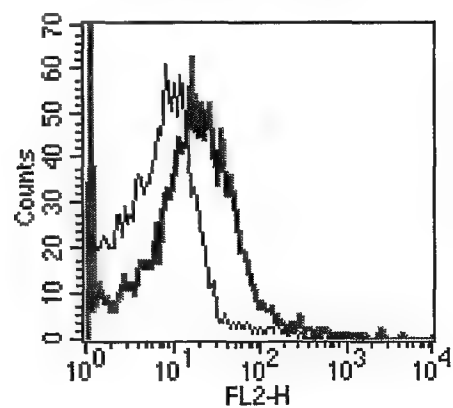


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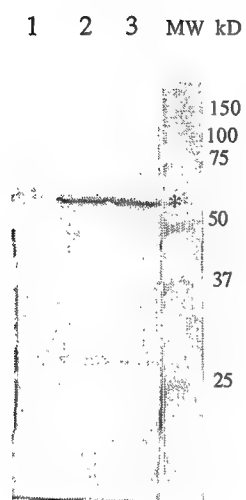
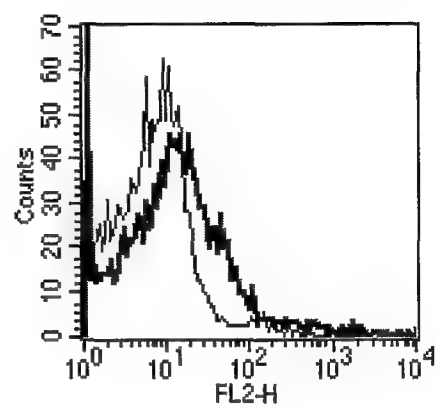
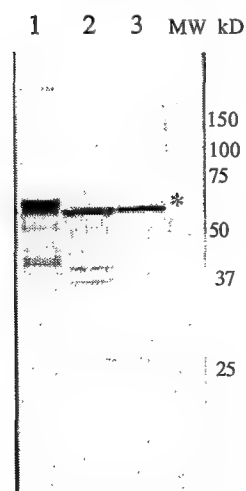
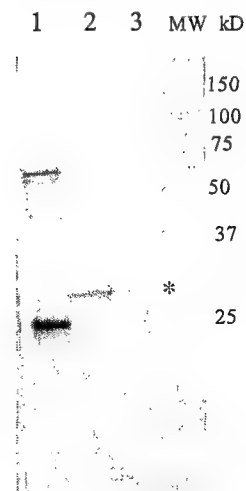
**FIGURE 252****FIGURE 252A****FIGURE 252B****FIGURE 253**



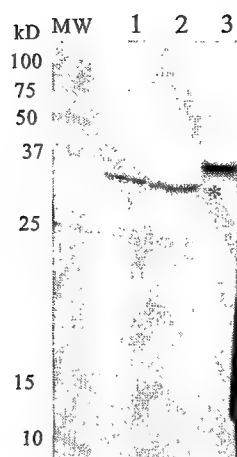
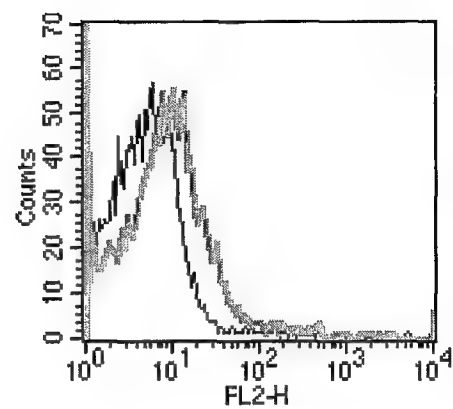
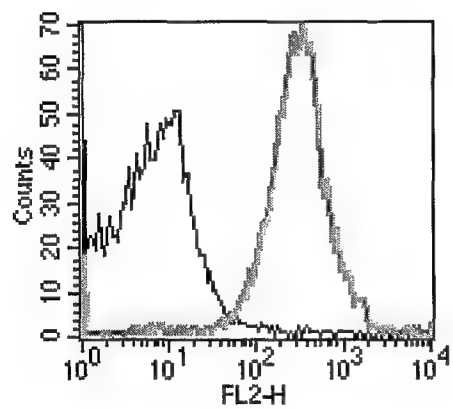
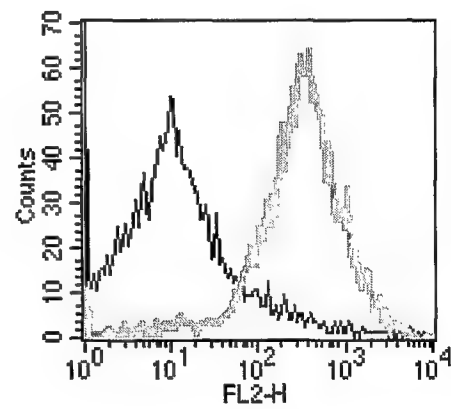
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**FIGURE 254****FIGURE 255****FIGURE 255A****FIGURE 255B**

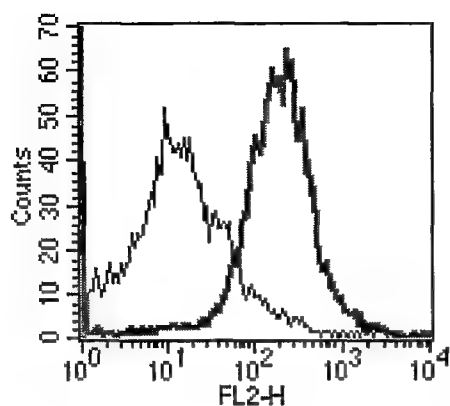
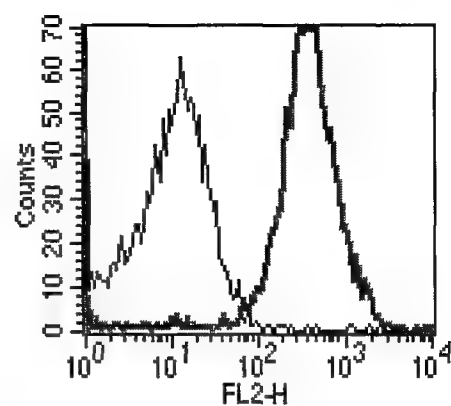
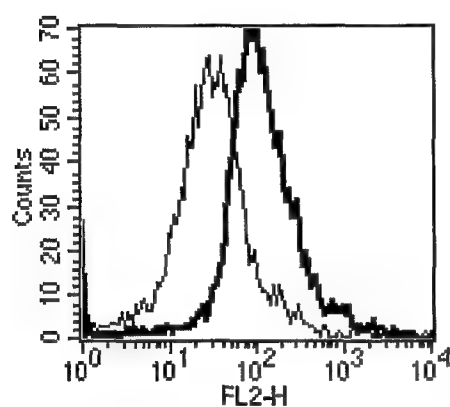
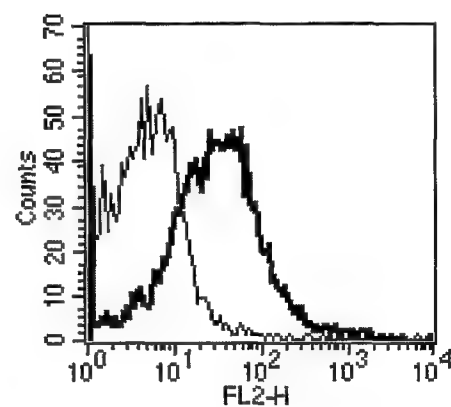
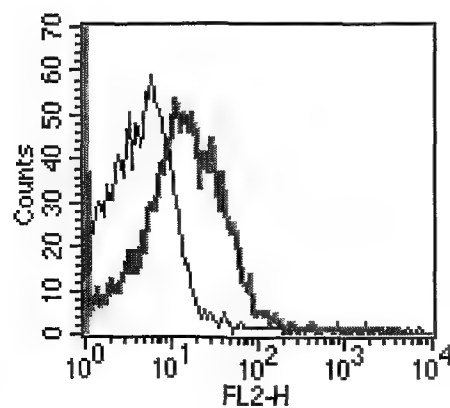
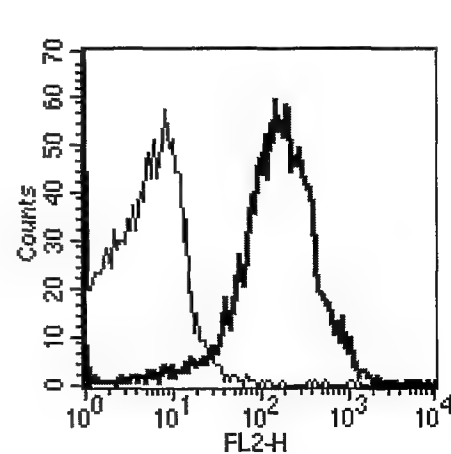
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**FIGURE 256****FIGURE 256A****FIGURE 256B****FIGURE 257****FIGURE 258**

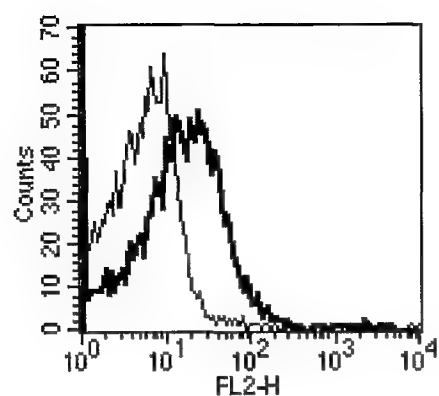
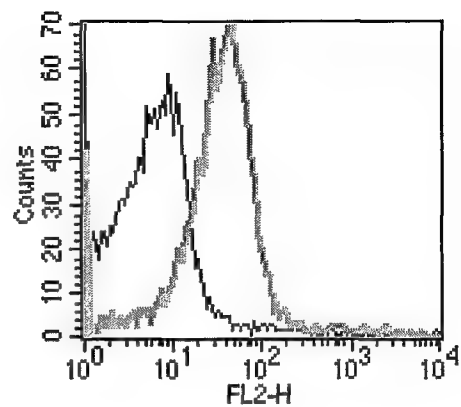
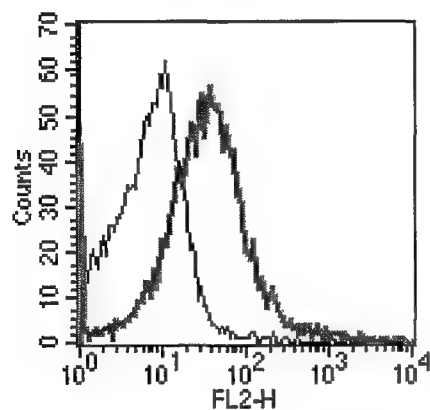
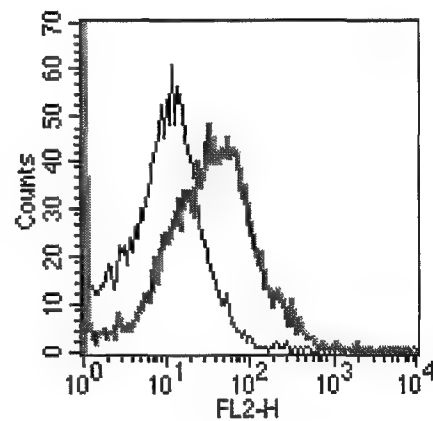
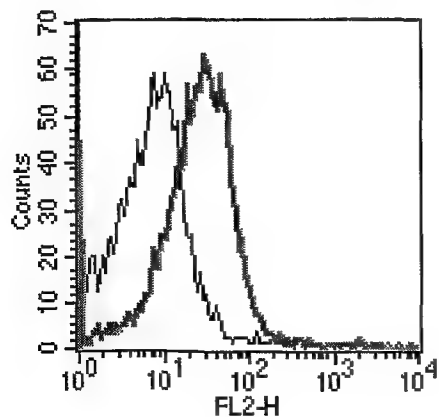
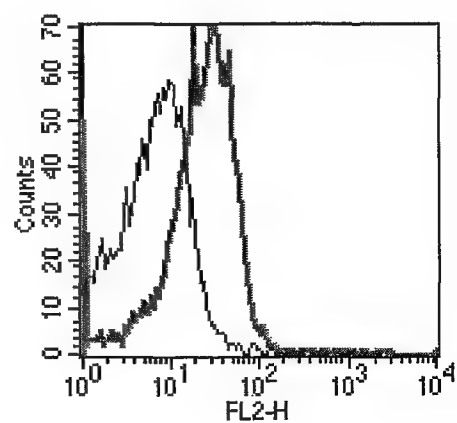
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**FIGURE 259A****FIGURE 259B****FIGURE 260****FIGURE 261**

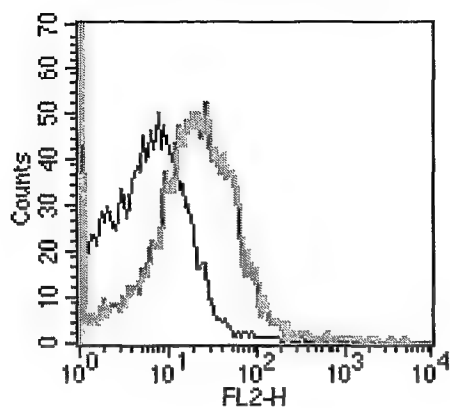
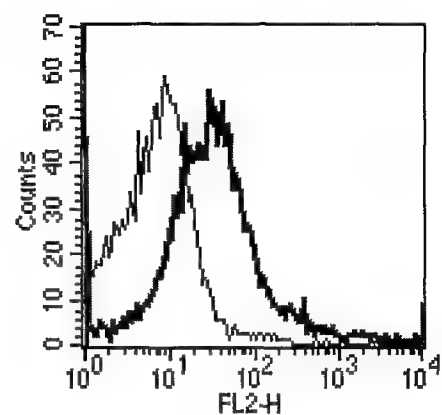
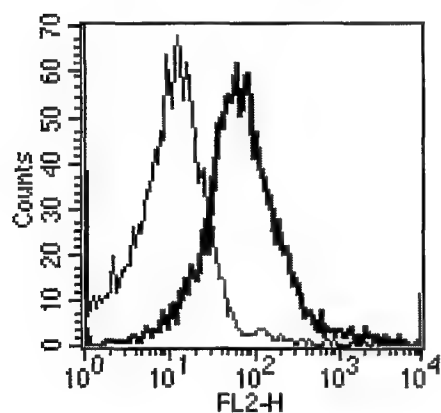
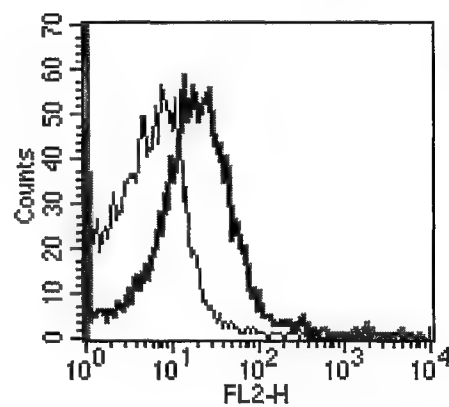
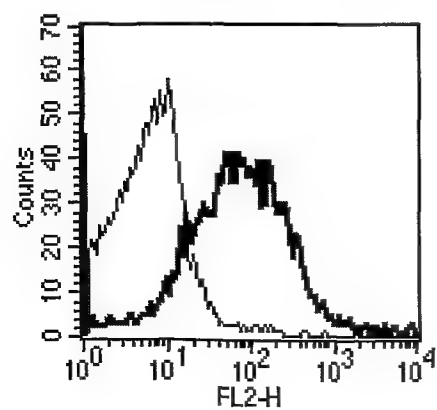
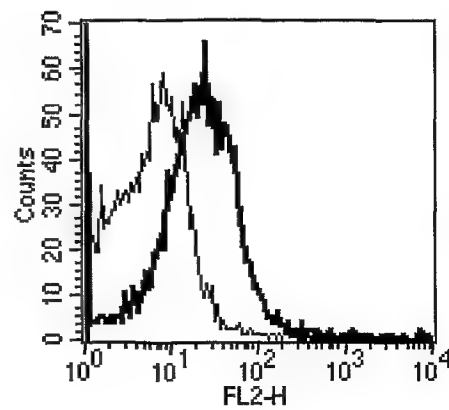
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**FIGURE 262****FIGURE 263****FIGURE 264****FIGURE 265****FIGURE 266****FIGURE 267**

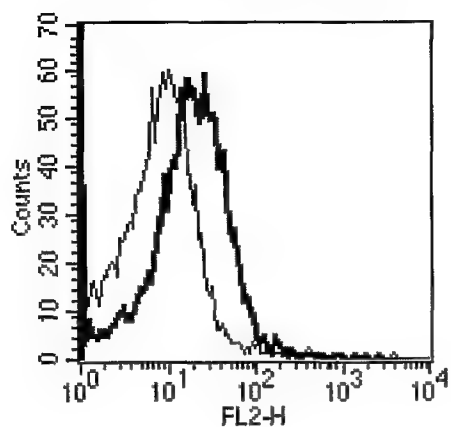
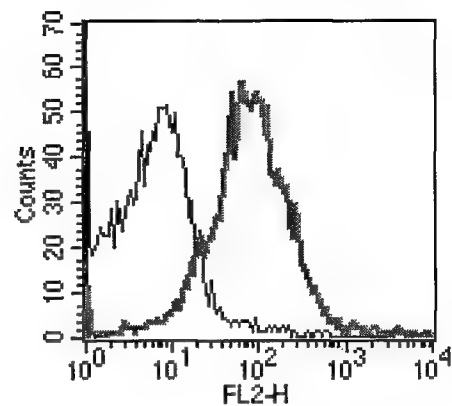
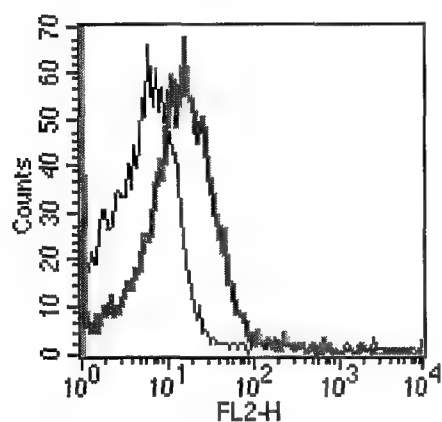
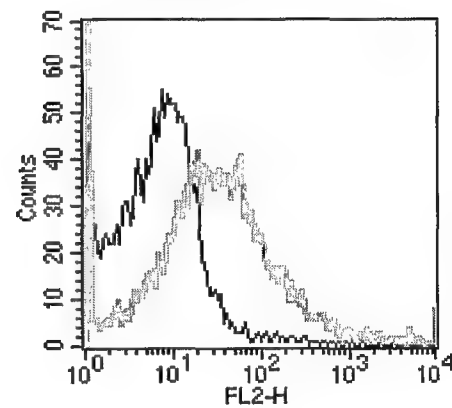
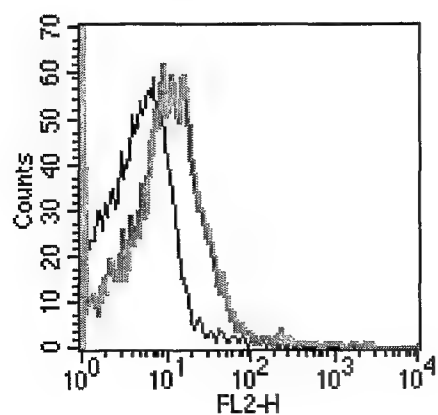
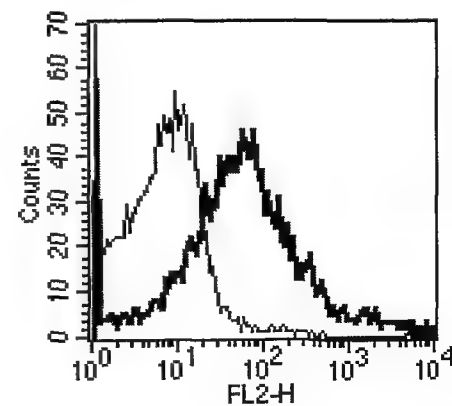
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**FIGURE 268****FIGURE 269****FIGURE 270****FIGURE 271****FIGURE 272****FIGURE 273**

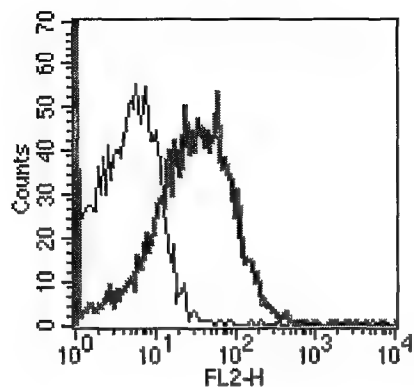
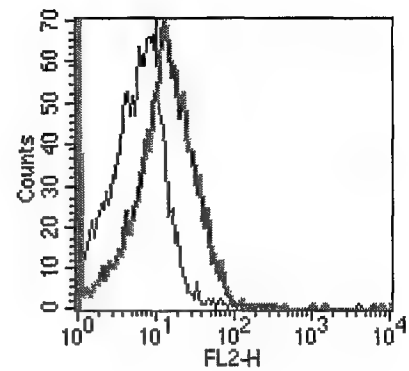
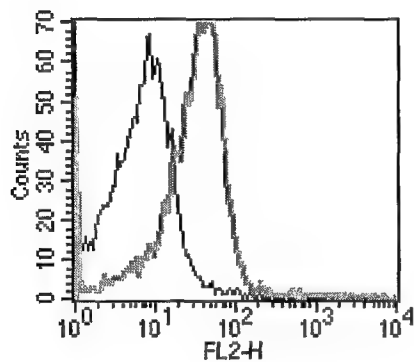
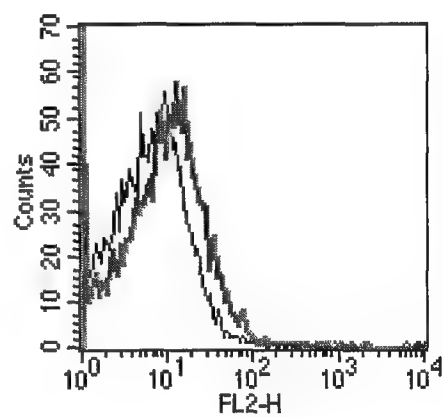
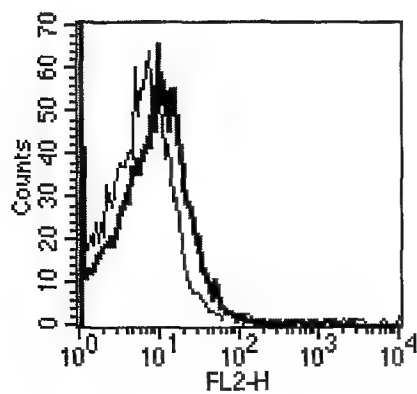
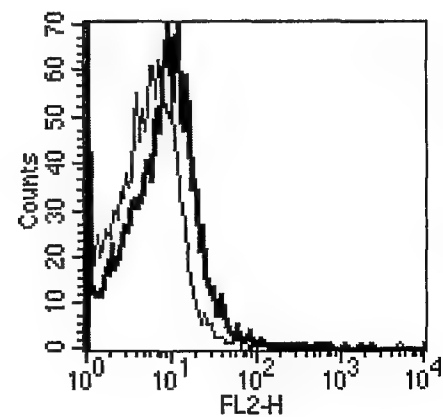
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**FIGURE 274****FIGURE 275****FIGURE 276****FIGURE 277****FIGURE 278****FIGURE 279**

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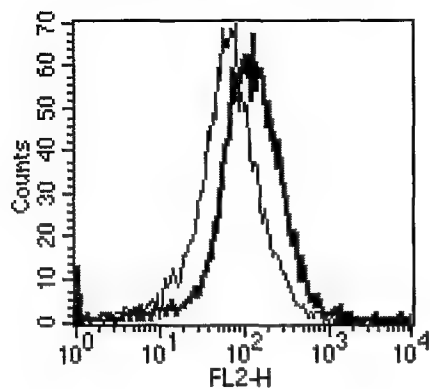
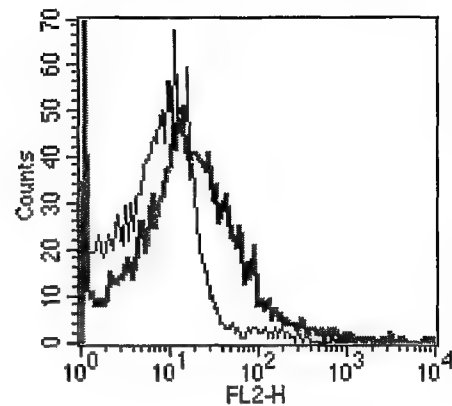
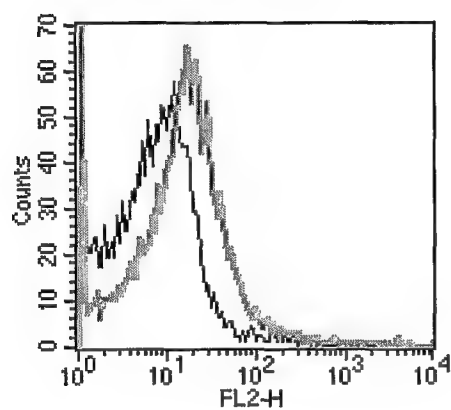
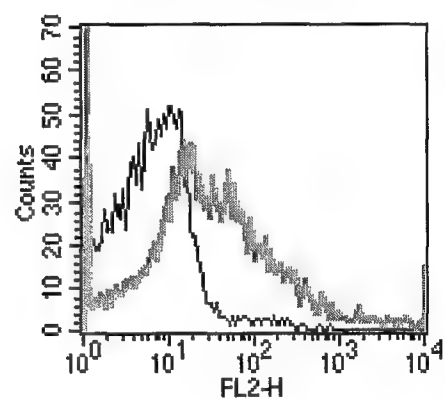
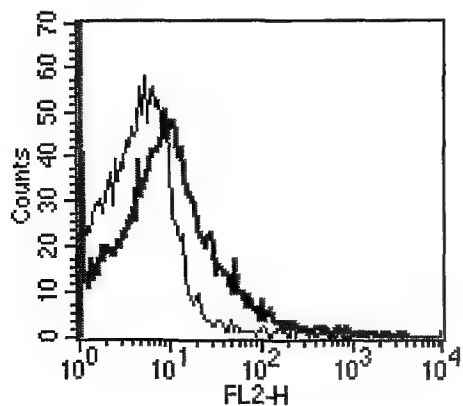
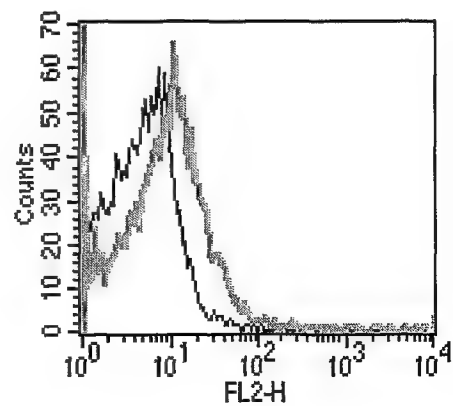
**FIGURE 280****FIGURE 281****FIGURE 282****FIGURE 283****FIGURE 284****FIGURE 285**

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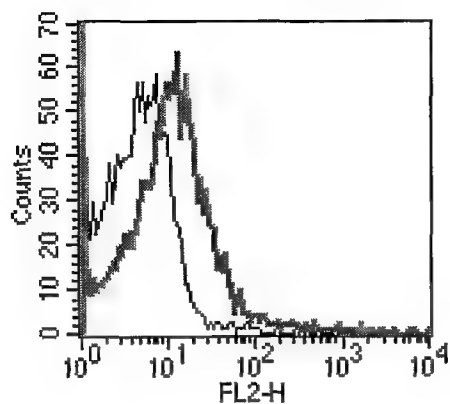
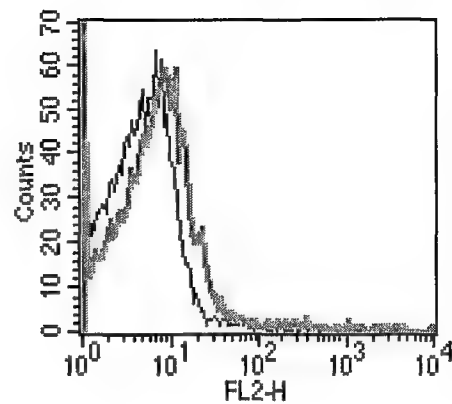
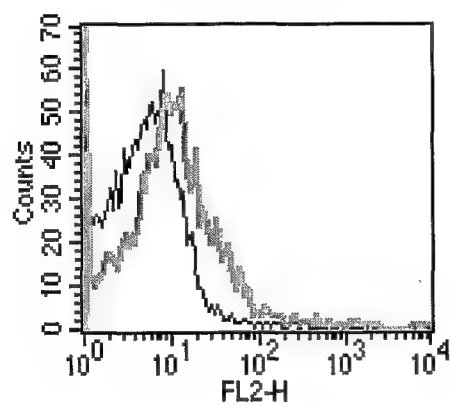
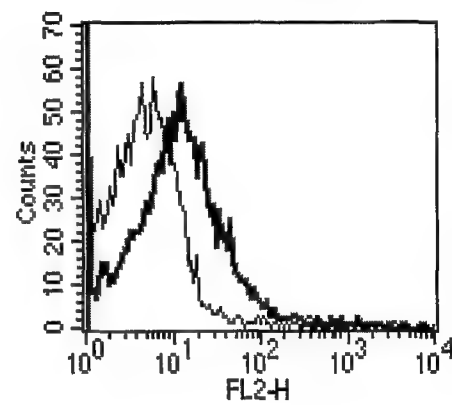
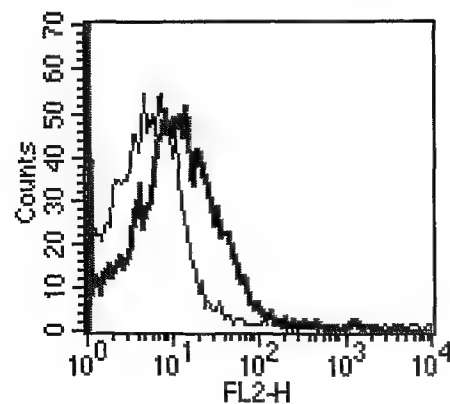
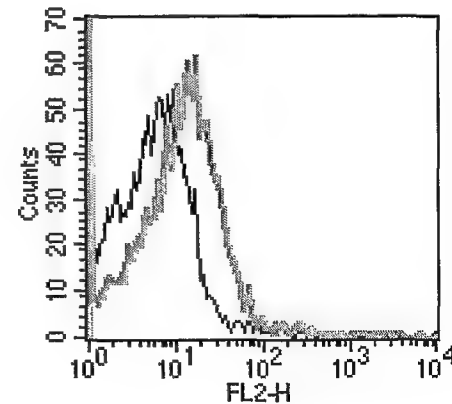
**FIGURE 286****FIGURE 287****FIGURE 288****FIGURE 289****FIGURE 290****FIGURE 291**



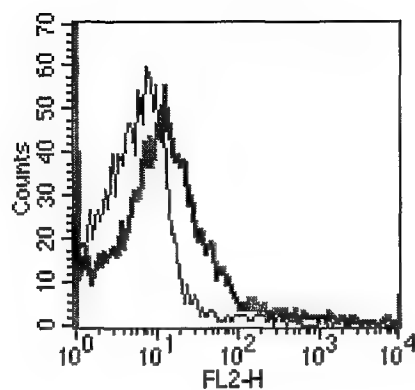
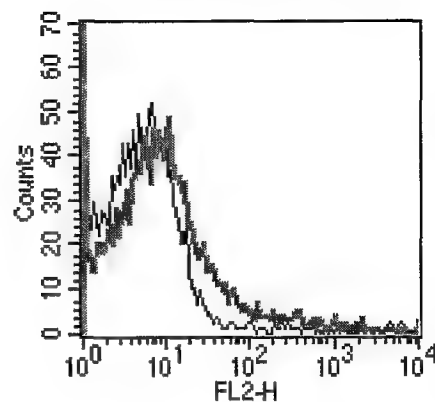
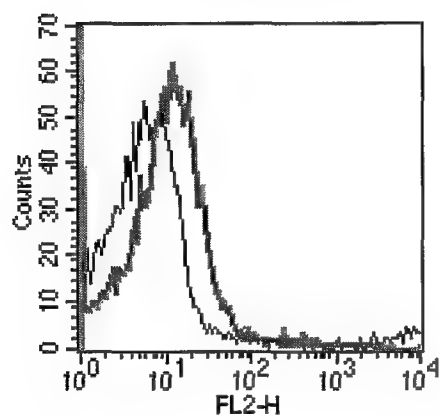
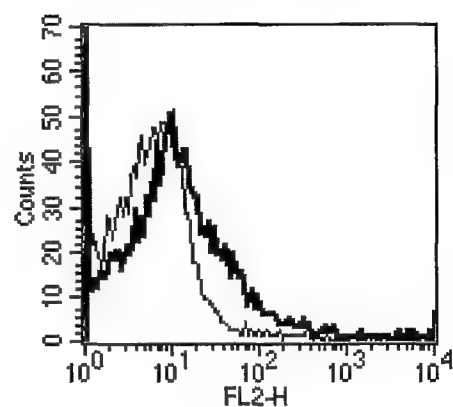
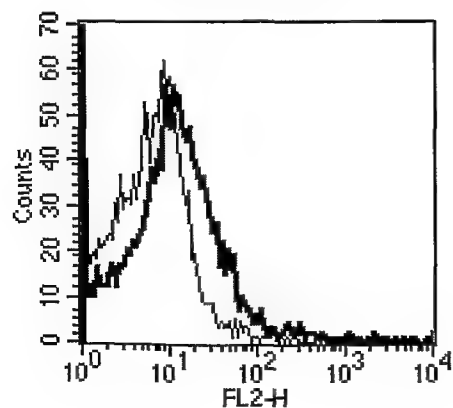
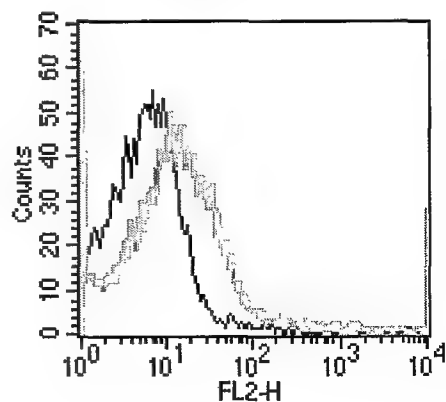
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**FIGURE 292****FIGURE 293****FIGURE 294****FIGURE 295****FIGURE 296****FIGURE 297**

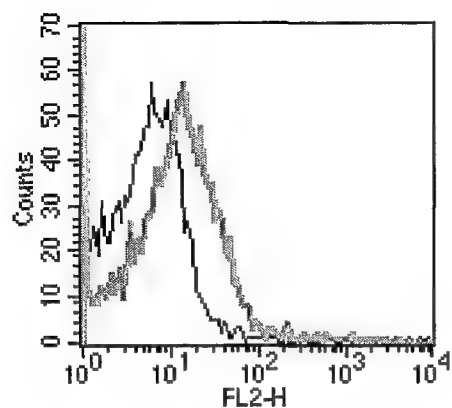
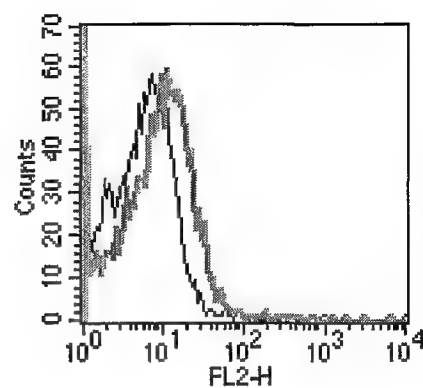
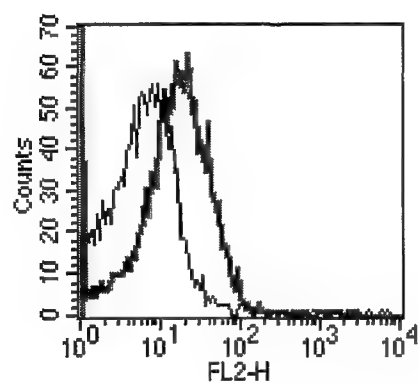
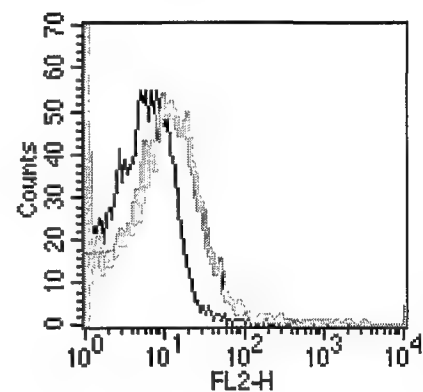
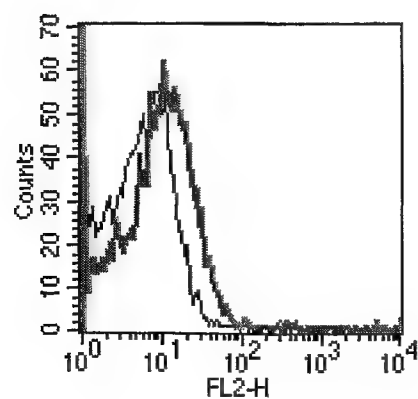
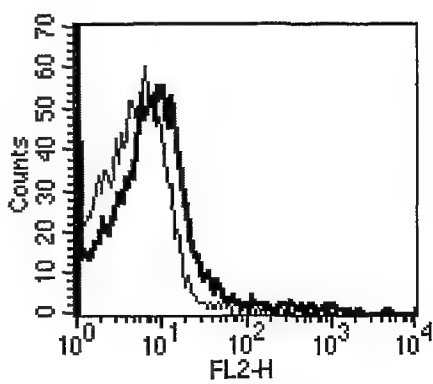
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**FIGURE 298****FIGURE 299****FIGURE 300****FIGURE 301****FIGURE 302****FIGURE 303**

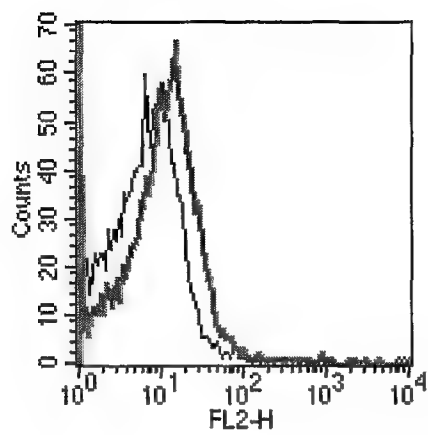
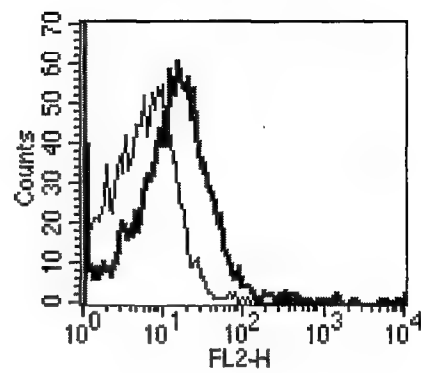
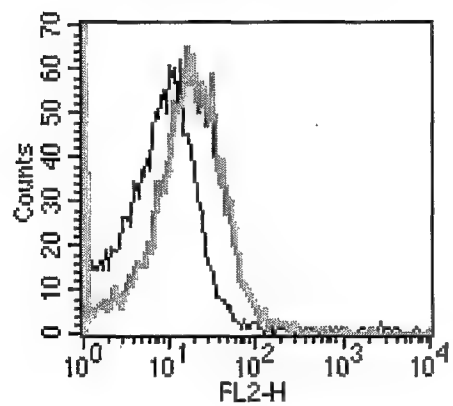
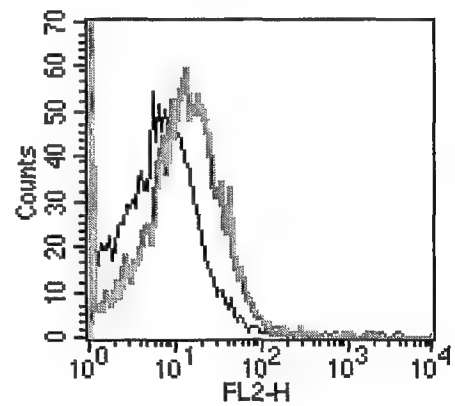
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**FIGURE 304****FIGURE 305****FIGURE 306****FIGURE 307****FIGURE 308****FIGURE 309**

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**FIGURE 310****FIGURE 311****FIGURE 312****FIGURE 313****FIGURE 314****FIGURE 315**

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**FIGURE 316****FIGURE 317****FIGURE 318****FIGURE 319**

SEO ID 12

MFTKFFEGLLTYHFLQNAFITAIVIGIVAGAVGCFIILRMSMLMGDAISHAVLPVVAISFILGINFFIGAIVFGLLSSIIITYIKENSVIKGD  
GITFSSFLALGIILIGLANSTDLFHILFGNILAVQSDSKYMTIIVGLIVLTLITIFFKELLITSFDPVLAKSMGMRVSFYHYLLMILLTLVAVTA  
MQSVGTILIVALLITPAATAYLVKSLRMLFLSSALGAVASVLGLYIGYTFNIAAGSSIVLTSTFMFLALFLSPKQSLFKKKQ

## SEQ ID 13

ATGCTATGAAATTTTTGAGGGCTTGATGTCATACCCTTTTTACAAATGCACTGATAACGGCTGTAGTCATTGGTATCGTCTCAGGTGCTGTA  
GGGTGTTTATTATCCTTAGGTCAATGTCCTTATGGGTGATGCCATCTCACACGCTGTTTTACCAGGGGTGCTTTGTCATTTATTTAGGAGTC  
AATTTTTTATTGGAGCGATTATTTTGGGTTATTAGCTTCTGTATTATTACTTATATCAAGGAAACTCTGTCAATAAGGAGATACGGCTATT  
GGTATCAGCTTTAGCTCTTTTTGGCACTGGGAGTCATCTTGATAGGGGTAGCCAATAGTTCGACGGACTTATTTTATATTTTGGGAATATT  
TTAGCTGCTCAAGATAGCGATAAGTGGATTACTATTGGTGTTCGATTTTTGGTTTATTAGTCTCTTTTTCAAAGAACTATTATTAACA  
TCATTTGATCCTATCTTAGCCAAATCAATGGGTGTGAAGGTCAATGCGTATCATTATTTGTTGATGGTCTTATTAACTTTAGTGGCTGTACGGCG  
ATGCAAAGCGTGGGTACTATCTTGATTGTTGCCCTATTGATTACGCCAGCAGCGACAGCTTATTATATGCTAATAGCTTAAAGTAATGTTAGTG  
ATGTCATCTTACTAGGCGCTTAGCATCGGTTTATGGGCTTATTTGGGCTATACCTTTAATGTTGCCGAGGGTCAAGTATCGTACTGACTTCT  
CGGATGATGTTTTGATCAGTTCTTTGTTTTCACCAAGCAAGGCTACCTTAAAGATGGATGCAAAAAAAGAAAAACACCT

## SEQ ID 14

MSMKFFEGLLSYHFLQNALITAVVIGIVSAGVGCFFIILRMSMLMGDAISHAVLPVVALSFILGVNFFIGAIIIFGLLASVIITYIKENSVIKGD  
GITFSSFLALGVLIGVANSSTDLFHILFGNILAVQSDKWTIGVSIIVLVVISLFFKELLITSFDPILAKSMGVKNAYHYLLMILLTLVAVTA  
MQSVGTILIVALLITPAATAYLVANSKLVMLVMSLLGALASVLGLYIGYTFNVAAGSSIVLTSAMFLISFFVSPKQGYLKRWMQKKEKTP

## SEQ ID 15

GTGACCTAATGGAGACGGGACCGGTGAAAAATCTATATGGAATAGCAAAGATAAAAGAAAGATTCTGGAAATGGTTTTGTTAATGAAATATCCC  
CTTACCTCTACAATATCAGGGGAAGTT

## SEQ ID 16

MTLMETGVPENLYGIAKIKRKILEMVLMMKYPLTSTISGEV

## SEQ ID 17

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GTTGACCAAACTAGCTGAAAACCTCTCAAAGGAAGCTACTGAACAACTAAACAAAAAACTAAGCAAGCCTTAAAGCTGATAAAAAAGCTTTT  
CCTCAATTGGCAAGGCTGTTGCCAAAAACGAGGCACAAGTGCTTATAAAACCTCTAAAGGTGATATAAATATCAAGTTATTTCCAAAATATGCT  
CCTTTAGCTGTTGAAAAATTTCTAACACATGCAAAAGAAAGGATATTAATGGTTTAAGTTTCCACAGAGTTTATCAAGATTATTAAGTACAACT  
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CATTCAAAACAACTGTGAGATAAAAAAGTTCCTAAGGTGATTATTAAGCCTATTGAGAGGGAGGAAATCCAAGTTTAGATGGTGGTTATACCGTC  
TTTGGACAAGTAATCTCTGGCATGGAACCTGTGGATAAAAATTGCTTCGGTAGAAGTTACAAAATCAGATCAACCAAAAGAAAAAATTACTATTACA  
AGTATCAAAGTTATTAAGACTACAAATTTAAA

## SEQ ID 18

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PLAVENFLTHAKBGYYNGLSFHRVIKDFMIQSGDPNGDGTGGKSIWNSKDKKDSGNFVNEISPLYNIRGLSLAMANAGADTNGSQFFINQSQD  
HSKQLSDKKVPKVIKAYSEGNNPSLDGGYTVFGQVISGNETVDKIASVEVTKSDQPEKITITSIKVIKDYKFK

## SEQ ID 19

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ATTGATGAAAACTGCCAAAGAAGAAAGCGAAGCAGCTTCTAAAGCCTATGAAGAAGCATTCAAAAAGCTCTCAAAGCTGATGCTAGCCAATTT  
CCACAACCTAACCAAGAAAGTCGCAAGAAAGAAAGCTAAGGTCTGATGAGGACAAGTCAAGGGGACATTACCTTAAGTTATTTCCAAAATATGCT  
CCCTTAGCTGTTGAGAATCTCTCACCATGCTAAAAAGGCTACTATGATAACCTTACCTTCCATCGTGTGATCAACGACTTTATGATTCAATCA  
GGTGACCCCAAGGAGATGGCAGAGTGGTGAATCGATTTGGAAGGCAAGGATCCTAAAAAGATGCTGGCAATGGCTTTGTCAACGAAATCTCT  
CCATTTTATATCATATTCGCGGTGCTCTTGCCATGGCAAATGCTGGTGCTAATACTAACCGGTAGCCAATTTTATATCAACCAAAACAGAAAAAT  
CAAAGCAAGGATTATCAAGTACCAACTACCAAAACCTATCATCTGCGCTTAGAGCATGGCGCAATCCAAGCTTAGATGGCGGTTATACTGTGA  
TTTGGTCAAGTCATTGATGGTATGGATGTTGTCGATAAAATTGCCGCTACTTCTATCAACCAAAATGATAAACCAGAAACAGACATTACGATTACC  
TCAATTGACATTGTCAAAGATTATCGCTTTAAAAAC

## SEQ ID 20

MKKLLSLSLVAISLNLNLSACESVDRAIKGDKYIDEKTAKEESEAAASKAYEESIQQALKADASQFPQLTKEVGKEEAKVVMRTSQDITLKLFPKYA  
PLAVENFLTHAKKGYDNLTFHRVINDFMIQSGDPKGDGTGGESIWKGDKPKKDAGNGFVNEISPLYHIRGALAMANAGANTNGSQFYINQNKKN  
QSKGLSTNYPKPIISAYEHGNNPSLDGGYTVFGQVIDGMDVVDKIAATSIQNNDKPEQDITITSIDIVKDYRFKN

## SEQ ID 21

ATGGTATTTATGGCAAATAAGAAAAAACAAGGAAAGAAAAACAGAAAGACCTACTAAGGCAGAAATAGAGCGTCAAAGAGCTATTCAAAGGATG  
ATTACTGCTCTTGTTTTAACAATTATTCTCTCTTTGGTATTATCAGATTAGGTATTTTGGTATTACAGTCTATAACGTCATCCGTTTATGGTA  
GGTAGCTTGGCTTACTTATTTATTGCGGCACTTTAATCTACCTTTATTTCTTTAAATGGTTGCGAAAGAAAGATAGCTTAGTAGAGGTTTTTTG  
ATAGCTTCTTTAGGATTATTGATTGAGTGGCATGCTTACCTTTCTCAATGCTTATTTGAAAGATAAAGAAATTTTGGCTTCACTGCTCGATTA  
ATTGTGCTGATTATTAATGCAATTTAAATCACTGTTTTTGCCGGTGGAGGTATGTTGGGTGCTTTGATTTACAAGCCAATTGCTTTTCTCTTTCT  
AATATTGGTGCCATATGATTGGTGTCTCTTCAATCATTTTGGGTCTTTTTTAATGAGTTCTCTGGAAGTTATGATCATGCTGCAATTTATTAGA  
GCTTTTAAAAATAAAGTGGCAGAGAAGCACGAGCAAAATAAAAGGAGCGTTTTGCTAAGCGAGAGATGAAAAAGCAATCGCTGAACAAAGAGCGC  
ATAGAGCGTCAAAGAGCTGAAGAAGAGCTTATTTAGCTTCGGTTAATGTAGACCCTGAAACGGGTGAGATTCTAGAGGATCAAGCTGAGGACAAT  
TTGAGATGATGCGCTACCACTGAGGTAAAGTGAACATCAACTCCGGTATTTTAGCCAGAGATCCTTGCTTTAGAGACATCGCTCAAATATGATCCT  
TTACCATGATAGCCGCAATTTATTTAGAAGCATGATTGCGCGATTCTCAATGATGAGAGAAATGATGAGGAAATGGTTTATGATTAGATGAT  
GATGTAGATGATAGTATATAGAAAATGTCGACTTTACACCTAAAACGACACTGGTTTATAAATTAACCAACGATAGATTATTTTGCACATGATAAG  
CCTAAAAATCAATCCAAAGAAAAGGATTAGTCCGAAAGAATATCAGAGTTTGAAGAAGCAATTTAGAAGTTTGGTATCGATGTAAAAGTAGAA  
CGTGCTGAAATTTGGACCATCAGTTACTAAATATGAAATTAACACGAGCTTGGAGTTCTGTGTAATCGTATTTCAAATCTATCTGACGACCTAGCT  
CTTGCTCTTGACGAAAGATGTGCGTATAGAAACCAATCTGGAATAATAGTATGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAAAT  
TCTTTCCGCGAACTTTGGGAACAATCTGATGCCAATCTGAAACCTTTTAGAAGTACCACTAGGAAAGCTGTTAACCGGCAATGCTGCAAGTTT  
AACTTAGCTAGAAATGCCGATCTTTTGGTAGCTGGTTCACTGGTTCAAGGTAATCTGTGGCAGTTAATGGAATTTTCAAGTATTTTGTATGAAG  
GCACGCTCCAGATCAAGTTAAGTTTATGATGATTGATCCCAAAATGGTTGAATTATCTGTTTATAATGATATTTCCACATTTTATTAATCCCTGTTGTA  
ACCAATCCGCGCAATGAAGTAAAGTAAAGCACTCCAAAAGTTGTTGTTGATGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAAATGAAAT  
GCAGGTTATAATACAAAGGTTGAAGAGTTTAAATGCTTCTGAGCAAAAACAAATACCTTTGCTTTAATCGTTGATTTGATGAGGATGATGAGG  
GACTTGATGATGGTTGCTAGTAAAGAGTTGAAGATGCTATTATTCTGTTTGGGGCAAAAGCAGTGTGCGAGGTATCCATATGATTCTTGCAACT  
CAACGCTCCATCCGTAGATGTTATTTCTGGTTTGAATTAAGGAAATGTTCCGTCGCGTATTGCAATTTGCTGTTTCAAGTGGTACTGATAGCCGTACG  
ATCCTTGATGAAATGGTCTGAAAGCTCTTGGGACGGGTGACATGCTCTTTAAGCCTATTGATGAGAATCATCCGATACGACTACAAGTTCC  
TTTATTTGATGATGATGTTGGTTTATCAAAGCAAGCCGAGGCTGACTATGATGATGAGGCTTTGATCTGAGAGATGATCT  
GAAACAGATAACGGCTCTGGTGGTGGCGGGAGTACCTGAAAGTATCTCTTTTTGAAGAAGCAAGGGACTCGTTTTAGAGACGCAAAAGCA

AGTGCTCAATGATTCAACGCCGATTGTCTGTTGGTTTCAATAGAGCAACAAGACTAATGGAAGAATTAGAAGCAGCGGGGTTATTGGTCCAGCA  
GAAGGAACCAAGCCACGAAAAGTTTAAATGACTCCAACCTCCGAGTGAA

SEQ ID 22

MVFMANKKKTKGKKTRRPTKAEIERQRAIQRMITALVLTIIILFFGIIIRLGLIGFITVYNVIRFMVGSLAYLFIAATLIYLYFFKWLKDKDSLAVAGFL  
IASLGLLIEWHAYLFSMPILIKDKBILIRSTARLIVSDLMQFKITVFFAGGGMLGALIKYPIAFLFSNIGAYMIGVSLTILGLFLMSSLEVYDIVEBIR  
AFKNKVAEKHEQNKKERFAKREMKKIAEQRERIQKAEAEIYASLVSNVDPETGEILEDQAEDNLDDALPPEVSETSTPVEPEILAYETSPNDP  
LPVEPTIYLEDYDSPINPMREDEEMVYDLDDDDVSDIENDVFTKPTTLIYKPLTIDLFAPEKPNQSKSKEDLVKRNILVLEBTFSSFGIDVKVE  
RAEIGPSVTKYEIKPAVGVRVNRISNLSDDLALALAAKDVRIETPIPGKSLIGIEVPNSEIATVSFRELWEQSDANPENLLEVLPLGKAVNGNARSF  
NLARMPHLLVAGSTSGSGKSVAVNGIISILMKARPQVKFMMIDPKMVELSVYNDIPHLLIPVVTNPRKASKALQKVVDMEENRYELFSKIGVRNI  
AGYNTKVEEFNASSEGGQKIPLPLIVVIVDELADLMMVASKEVEDAIRLGQKARAAGIHMILATQRPVSDVISGLIKANVPSRIAFVSSGTDST  
ILDENGAEBLLGRGMDLFKPIDENHPVRLQGSFISDDVVERIVGFIQDAEADYDDAFDPGEVSETDNGSGGGGGVPESDPLFEEAKGLVLETQKA  
SASMIQRRLSVGFNRATRIMEELEAAGVIGPAEGTKPRKVLMTPTTPE

SEQ ID 23

[illegible]

SEO ID 24

MVKRNQRKKSAPKKRLTKAEVEKQRAIKRMILSVLMAALLLIFAMRLRGVGVTTYNMIRFLVGLSLAYPFMFRAWLIYLFCKWLRQKDGMIAGVVIA  
 FLGLLVEWHAFIFAMPRMLDQDIFLGTARLITRDLLALREVEFTBVGGGMLGALLYKPIAFLSNIGSYFTGFLFILLGLFLMTPWDIYDVSHFVKEA  
 VDKLAVYQENKEKRFIKREHRLQAQBEALEKQABEEKRLAELATVDPETGEIVEDSQSQVSYDLAEDMTKEPEILAYDSHLKDDSETLSPDQEDL  
 AYABEIGAYVDSLSALASEDEMMDPEVDFTPKTHLLYKLPITDLFADPKPKNQSKENLVRKNIKVLEDTFQSGFIDVKVERAEIGSPVTKY  
 EIKPAVGVRVNRISNLADDLALALAKADVRIEAPIGKSLGIEVPNSEIATVTSFRELVGQSDANPENLLEVLPGKAVNGNARSFNLARMPHLLVA  
 GSTGSGKSAVANGI ISSILMKARPQVQFMMDPKMVELSVYNDIPHLLIPVVTNPRKASKALQKVVDENRNYELFSKIGVRNIAGYNTKVEEFN  
 ASSEKQKIPPLIVVIVDELADLMMVASKEVEDAITRLGQKARAAGIHMTLATQRPSVDVISGLIKANVP SRMAFAVSSGTDSTRTILDENGAEKLL  
 GRGDLMLFKPIDENHPVRLQGSFISDDVRIYFNKIDQTEADYDDAFDPGEVSDNDPGFSGNGGAAEGDPLFEEAKALVLETQKASASMIQRRLSV  
 GFNRATRLMDELEAGVIGPAETGKPRVLQTN

SEQ ID 25

ATGCATATTGAGACTGTTATTGATTTCAAAGAATTAGGAAAAAGATATCGTTTTAAAAATCCTACAAAAGAATTAATAGCTGATACTTTAGAACAA  
GTCTTTAGAAGTGATAAAAGAAGTTGATATTATCAAACTCTCAAATATTATTATGTTGTTGGTTATTATATCTTTATGAAGCATCTGCTGCTTTTGATTCA  
CATTTTTAAAGTTTCTCAACGAAAGTTGGCTGGAGAACATCTAGCTTATTTTACAGTACATAAAGATTGTGAGAACGAAGCTTTTCTTTTAAAGTTAT  
GAAATGTTTAGATTAGCAGATAAATGGACGTCTAATGTTCTTGAGCAAGAATATCAAGAGGCAATTGCTAATATTAAAGGACAAATTAGACAGGA  
AATACTTATCAAGTAAATTATACACTAGAGCTTAGCCCAACAATTATGCTCGGATCCCTTTAGTGGTTTATGAGCGCTTAATGTTAGAACAGGAGCA  
GGATATAATGCTTATATTGCCTACGACGATAAAAGGATTTTATCTGTAAGCCCGGAATTGTTCTTTAAGAAGAAGGATGAAGTCTTAACTAGTA  
CCAATGAAGGGAAACAAGCGCTAGAAAGCCTACTTATCAAGAAGATCTGGCGGAGCGAGATTGGTTGGCAAAATGATCCTTAAAAATCGTTCTGAAAT  
ATGATGATGTTGATTGTTTATTAAGAAACGATATGGGCGGTATCTGTGATTTGGGACAGCTTAAGGATAAAAAACTATGTCAAGTGGAGCAGTATGCA  
ACTGTGTGGCAAAATGACATCAACTATTGAAGGAGTTTATCGCCAGAAGTGACACTATGTCTAATTTTCAAGCTCTATATCCTGTGGATCTATC  
ACTGGAGCTCCTAAGATATCAACAATGGCTATTATTAATGAGTTGGAAAAACGGCCAAGAGGTATTTATTGTGGGACGATAGGACTTTGTCATGCCA  
GACGACAAGCTATTTTAACTGTTCTTATCGCACAGTACAAATGAAGGTTCAACAAGCCTATTACGGCGTTGGTGGAGGTATACGTGGGAGAGC  
CAGCAGAGATTCTGAATATGAAGAAACCCCGTCAAAAATCAGCTGTTTAAACACGCTGTCAATCCAAAATTTCAATTAATAACTACAGGAAGAGTGACT  
GAAAATAAACTTCTTTTCTCAACAACATGTGAGAGAGATTAGTTGAATCAGCGTCTTATTTTGCTTATCTTTTGTATAAAGATAAATCGAAAGG  
GAACTGAAAAAATACCTTCATCAGCTAGATGAGAAGGATTACCGCTTGAAAAATAATGCTTTGATAAAACCTGGTAAGGTAACGTTTGAGGTAACAA  
CTAGTGAATTTATCAAAAAGTTTTTAAACGGCAGAGTGGTGGTACAAAGCTACCTTATTAATTAATCCCGGTTTACTTATTTTAAACTTCTTAT  
CGCCACATATTATTGAAGGTCAGAATGAAAAGATATTTGTATCTCTGAGGGGTGCTATTGGAAACAAGTATTTGGGAATATGTTTGTAGAAAAA  
AATGGAAGGTTTTTAAACCCGAGTTTATCAGAAGGAGGGTTGAATGGGATTTATCGTCTGTCATCTCTTTAAAAAACAAAAAGTAATTGAAGCACC  
CTAACTTTAAAAGATTAGAATCAGCCGATGCTATATACGCTGTAATGCTTTTAGAGGCGCTTATCCTCTAAACCTTAAAG

SEO ID 26

MHIETVIDFKELGKRYKRNPTKEIADTLEQVLVLEIKVDYYSQSQNYVYVGYLSYEASAAFDSHFKVSSQQLAGEHLAYFTVHKDCENEAFPLSY  
ENVRADNNTANVSEYEQEAIANKIGQIRQNTYQVNTLELSQKDCSPFVSVEYRLMVEQGGAGNYAIAYDDKRLISVSPBLFFKKKDEFLTTR  
PMKGTSARKPTYQBEVAERDLANDPNKRSENMMI VDLLNRNDMGRICDVGTFVKVKLLCQVEQYATVQMWTSTIEGBLSEPEVTLMIFQALYPCGSI  
TGAPKISTMAINELEKPRGRIYCGTIGLCMPDQQAIFPNVPIRTVMQKGQAAQYVGGGGITWESQTDSEYEETRQKSAVLTRVNPKPQLIITGRVT  
ENKLLFSQQHVERIVESAPSYFAYSFDKSKFERELKKYLHLQDEKQVRLKIMLDKTKGVKTFEVKQVLNLSKDELTAEVVVQDYPILKSPFVYFKTYS  
RPHIIEGQNEKIFVSPGELLLETSGNITVLEKNGRFLITPDLSEGGGLNIYRRHLKNQKVI EAPLTLKDLLESDAIIYACNAVGRGLYPLNFK

SEO ID 27



TTGGGTATGCATAGAAAACTATTATTGATTTCAAAGAGCTCGGGCAACGCTATCTTTTTGATGAGCCATTAGTAGAATTGGTAGCCAAAGTCCTTA  
 GATCAGGTCGGTCCAGTCATTGAAAAAGTACAACACTACCAACAGCTGGGCTATTACGTGGTGGGCTATCTCAGTTATGAAGCAGCTGCTTTTTTT  
 GACAATGCCCTACAAACCCATAATGACAGACTAGGCAACGAGTACCTTGCCTATTTTACAGTGCACAAAACCTGTCAAAAAAAGACCTACCTCTT  
 GATTATGACAGCATTACTTCCCTAACCAATGGGTACGCGCAACTCAAAAAGAGCCCTATCAAAAAGCCATTGAAACCATTCACCGTGAGATGCAA  
 CAGGGCAACTACTTACAGGTTAACTACACCTTCAATTAACCTCAGGAACCTCAATGCAGCTGATAGTTTAGCCATTTACAATAAACTCCTCGTTGAA  
 CAGGCTGCTGGCTACAAATGCCTACATCGCCCATGATGAGTTTGCCTTATTTAGCTAGTCCGAAATGTTCTTTAAACAAGAGGGCAACAGGTTA  
 ACTACTAGGCCTATGAAAGGCCACCACCAACAGAGGGGTTAATAGCTGGCTGGATCAACAAGAACATGACTGGCTCCAAGCTGACGGGAAAAACCGT  
 TCTGAAAAACATGATGATTGTGGATTGTCTCCGCAATGACATGGGGAATAATTTGCCAAACAGGCAGTGTTCGTGTTGATAGGCTCTGTGAGGTCGAG  
 CGATACCTTCCCGTCTGGCAAAATGACCTCAACTATTGTTGGTGACCTCAAAGCGGACTGTGACCTGTAGACATTTCAAAAGCTCTCTTTCTTGT  
 GGCTCTATCACAGGGGCCACCAAAAGTCTCCACCATGGCAATTTACATCTCTGGAGCCAAAACCAAGGGGGATTATTTGTGGAAGTATTGGCATT  
 TGCCTACCTGATGGTCGCGTCTTCTCAATGTTCCCATTAGAACCATCCAGCTCAGTCATAATCAAGCTACTTATGGTGTGCGAGGCGGCATCACT  
 TGGCAAAGCAAGTGGGAAGACGAATACGAGGAAGTCCATCAAAAAACAGCTTTTCTCTATCGGCACAAAACAAATCTTTGACCTCAAAACAACCGCC  
 AAGGTGGAAACACAAAAAATAGCCTTCCCTTGAGCAACACCTCAATCGCTTAAAGAAGCAGCCACTTATTTTGTCTACCCCTTATAATGAAAAAGCT  
 TTGCAGAAAACACTGTCAACCTATTGGGAAAATAAGAATAATGCTGCCTACCGTTTGATGATTGTTTATCCAAAGATGGAAGATTAGCCTCTCT  
 GATCAACCTTTGGAACCTTTGTGAGCCGATTTTCTGACAGCTCAACTCTCTTACAGAAAAAGGACGTGACAGCTTCGCTTTTACCTACTTTAAG  
 ACCAGCTACCGGCTCATATTGAGCAAAAATCTTATGAACAGCATTTCTTAAACCAAGCGGGCAATTATTGGAAACGTCATTGGCAATCTCTTT  
 GTTCAGCTGGGTGAGCTCTACACACCAGCTGGCTGGGGATTATTACCAAGCAACTTTTTCGCCAAGAACTTTTTGCGCAAGCTTACCTGATCAAGCTCAG  
 GAAAAAGAGGTGACACTAGCTGATTTAAAGAGGCTAGCGCTATTTTTGGAGGAAATGCTGTCCGTGGCCTTTATCTCTCAACCTTGAGCTTACT  
 CACCTTGATGCCCTCTTAGCTAAGAGTCAAGCC

## SEQ ID 28

LGMHRKTIIDFKELGQRYLDFDEPLVELVAKSLDQVGPVIEKVQHYQQLGYVYVGYLSYEAFAFFDNALQTHNDRLGNEYLAYFTVHKTCQKKDLPL  
 DYDSITIPNQVWSATQKAYQKAIETIHREMQQNTYQVNYTLQLTQELNAADSLAIYNKLVVEQAAGYNAYIAHDEFAVISASPELFFKQEGNRL  
 TTRPMKGTTRKGVNSWLDQOEHDLQADGKNRSENMMI VDLLRNDMGKI CQTGSVRVDRLECEVERYSTVWQMTSTIVGDLKADCDLIDLKALFPC  
 GSITGAPKVSTMAIITSLEPKPRIGIYCSIGICLPDGRFFNFVPIRTIQLSHNQATYGVGGGIIWQSKWEDEYEEVHQKTAFLYRHKQIFDLKTTA  
 KVEHKKIAFLQHLNRLKEAATYFAPYPYGNELQKQLSTYLENKNNAATLRMIRLSKDGKISLSDQPLEPLSADFLTAQLSLKADVTASPTTFK  
 TSYRPHIEQKSYBQLFYNQAGQLEBTSIGNELFVLQGTLYTPPVAVGILPLFRQELLATGQAQKEVTLADLKEASAFGGNAVRGILYPLNLELT  
 HLDALLAKSQA

## SEQ ID 29

ATGGTCACAGGAGGATTCGACTAGACCTCTTACTTTGAGATAACTAAGATAGCTCGTGCAACTTACTATTATCAACTAAAGAACTGAATAAACCA  
 AATAAAGACAAAGCAATCAAACTGACATTCAATCCATTATGATGAACATAGAGGAACTATGGCTATCGTCGGATTATTATTAGAATGCGAAAT  
 CGTGGCTTTGTCTACCAACCAAAAGGGTGCAAGGCTTGATGAAAAGTATGGGCTTGACTGCTCGTATTTCGTCGTAAGCGCAAGTATGCCCTTAC  
 AAAGGTGAGGTTGGTAAGAAGGCTGATAACCTGATTCACGCCAGTTTGGGGGTGCAAGCCCTATGAGAAGTGCTATACCGATGTGACGGAGTTT  
 GCTTTACCTGAAGGGAACCTTATCTATCGCTGTTCTTGTGAGCTATAACAGTGAGATAATTGATTTTACCTGTCTCGGTCTCCTGACTTGAAA  
 CAGGTTCAACACCATGCTTGAGAGGGCTTTCTGCGGCTTCATACAGCAAAACCATTTCTCCACAGCGACCAAGGCTGGCAGTACCAAGTCC  
 TACCATCAATTTCTGAGGACAAAGGCATTTCGTCTTCTATGTACGGAAGGGGAAACAGTCTGACAAACGGTATGATGGAATCTTTCTTTGGGATT  
 CTAAATCTGAGATGTTCTATGGCTTGGAGAAGTCTTACAAATCACTTGATGACCTTGAGCAAGCTATCACAGATTACATTTTTTACTACAACAAC  
 AAGCGAATCAAGCAAACTAAAGGACTTAGTCTGTGCAATACAGAATAAATCCTTCACT

## SEQ ID 30

MVTGGFRLLDLEITKIRATYYYQLKKLNKPNKDKAIKSDIQSIYDEHRGNYGYRRIYLELRNRGFVINHKRVQGLMKSMGLTARIRKRKYASY  
 KGEVGGKADNLIQRQFEGSKPYEKCYTDVTEFALPEGKLYLSPVLGDYNSSEIDFTLSRSPDLKQVQTMLERAFPAAYSSETILHSDQGWQVQHK  
 YHQFLEDKGI RPSMSRKGNSPDNGMMESFFGILKSEMFYGLEKSYKSLDDLEQAITDYIFYNNKRIKAKLKLSPVQYRTKSFT

## SEQ ID 31

ATGCTACTTGAAATCCTTGATTTATCACGCTCCACCTATTACTATCAAGTGAAGCGACTAGCTCAAGGAGATAAGGATATAGAACTAAAGCATGTG  
 ATTCGAGAGATTATGATGAGCATAAAGGTAATTACGGTTATCGTCGGATTATATGAGAGTTGCGTAACCGAGGATTGTGGTCAATCATAAGAAA  
 GTTCAACGCTCATGAAAGTCATGGGCTTAGCAGCCCGCATTCGTGCGAAGCGCAAGTATTCTTCTTCAAAAGGAGAGGTTGGTAAGAAGGCTGAT  
 AATCTGATTAAACGTCACCTCGAAGGCTCTAAACCTTACGAAAAATGTTACACTGATGTGACGGAGTTGGCCTTACCTGAAGGAAAACCTCTACTTA  
 TCACCTGTTCTTGATGGCTATAACAGTGAGATTATTGATTTCACCTCTCTCTGCTCTCTTAACCTGAAACAGGTTCAACCATGCTTGAGAAGACT  
 TTTCCAGCAGATTATACAGCGGAACCTATTCTTATAGTGACAGGGGTGGCAATACCAACACAGTCTTACCATGATTTTTTAGAGTCTAAAGGT  
 ATTCGGCATCCATGTCCGCAAGGGAATAGTCCGGATAACCGCATGATGGAATCCTTCTTTGGCATCTCAATCTGAAATGTTTTATGGACTC  
 GAGACAACCTATCAATCACTTGACAAGCTTGAAGAAGCTATTACAGATTACATTTTTTACTACAACAACCAAGCAATTAAGCAAACTAAAGGA  
 TTTAGTCTCTGCTCAATACAGAATAAATCCTTTCAA

## SEQ ID 32

MLLEILDLSRSTYYYQVKRLAQGDKDIELKHVIREIYDEHKNGYGYRRIHMELRNRGFVNVNKKVQRLMKVMGLAARIRKRKYSSYKGEVGGKAD  
 NLIKRHFEGSKPYEKCYTDVTEFALPEGKLYLSPVLGDYNSSEIDFTLSRSPDLKQVQTMLEKTFPADSYSGTILHSDQGWQVQHQSYHDFLESKG  
 ILASMSRKGNSPDNGMMESFFGILKSEMFYGLETTYQSILDKLEEAITDYIFYNNKRIKAKLKLSPVQYRTKSFT

## SEQ ID 33

ATGAAATTAAGTTATGAAGATAAACTAGAAATATACGAGTTAAGAAAGATCGGGATGTCTGGTCTCAGATTAGTCAACGATATGATGTTCTGTATC  
 TCGAATCTTAAATACATGATAAACTCATGGATCGGTATGGTGATAGAAATCGTCGAAAAGGTAGAAATGAGTATTATCCACCTGAATTAAGCAG  
 GAAATGATAGATAAAGTCTTGATTATGTTGTTCTCACTCTCTGTTCTCTTGATTATGCTCTCTTAATTTGTTCTTACTACAAATTTGGCTT  
 TCCCAATTTAAGTAAAGTCTGATTGACGGCAATCTCAGAAACAAACATCTTAGATTATGCTCTCTTAATTTGTTCTTACTACAAATTTGGCTT  
 ACAGAGCTCGAGCGACTTACGGAAGAAATGAGCGCTTGAAGACGGAGAAATGCCTTTCTAAAAAGGTTGAGGGATTGCGCTTGAGGGACGAAGCC  
 TTACAGAGCGAACCGCAGAAACAATTAGAGAAATGGTCACAGGAGGATTCCGAC

## SEQ ID 34

MKLSYEDKLEIYELRKIGMSWSQISQRYDVIRISNLKYMIMKMDRYGVEIVEKGRNEYYPPPELKQEMIDKVLHGCSQLSVSLDYALSNCISILTNWL  
 SQFKNGYTI VEKTRGRPSKMGKRKKTWBEMTELERLQEENELRTEAFNLKRLDLRLDEALQSERQKQLEBKWSQEDSD

## SEQ ID 35

ATGAAATTTAATCAAGAAACGAAAGTTAAGATTTATGAGTTACGGCAAAATGGGAGAGTCCATTAAATCCATATCAAAAAAGTTTGATATGGCAGAA  
 TCCGATCTCAAATATATGATTCGCTTGATTGATAGGTATGGGGTAACCATTTGTTCAAAAAATGTAAGAATCATTATTTCTCCAGAACTGAAGCAA  
 GAGATAATAAATGATTCGATTGACGGCAATCTCAGAAACAAACATCTTAGATTATGCTTTTACCAACTTCTAGTATGCTCTCAAGGTGGATA  
 CGGCAATACAGAAACCGGTTATCTATTCTTGAACCAAGAGGGAGACCGAGTAAGATGGGGCGTAAACGTAAGAAAAATTTGGAAGAGATG  
 ACAGAGTTGAACGCTTCTCAGAAGGAATTAGAATACCTTAGAGCGGAGAAATGCTGTGCTAAAAAGCTGAGAGAATACCGCTTGAGGGACGAAGCA  
 AAATCAAGAGCAACAGAAATCATTCAAGCAT

## SEQ ID 36

MKFNQETKVKIYELRQMGESIKSISKKFDMAESDLKYMIRLIDRYGVTIVQKCKNHYSPELKQEI INKVLIDQSQKQTSLDYALPTSSMLSRWI  
 AQYKNGYTI LKPRGRPSKMGKRKKTNBEMTEVERLQKELEYPRAEAVLKKLREYRLRDEAKLKEQQKSKFKH

## SEQ ID 37

TTGAAAAATCAACAAAAATTAATGTATCTAGAGAGTATCGAGCTATACTCAAACATCACTAAAGCCGCTGCACACCTTTTATTTCTCAACCTTAC  
CTAAGCAAAGTGATCAAGCAATTAGAAAAATGAGTTAGAAATAAACTCATCCAGAGCCAAGGACACCAAACTTTTAACTTATGCTGGACAGAGA  
TATCTATTTCTACCTAAAAAGAAATGATATGATTGAGCGTCAAAATGGCCAAAAGAACTATATCTCATCCGTTCTGTATAAAAAAGGAGAAATCACACTT  
GGGATTAACCTCTGGCTTAGCAAGTTCTATTCTGGCAAATGTACTTCCCAAATTTAACTTTGGAGCACCAGAAATTTCTGTCAAATTACTCGAAAAAC  
AATCAAAATATTTCTGAACAATTTGGTAGCGAGTGGTGATATTGACCTAGCTGTTGGGATGGCTCCTATCCTTTATAAAGATGGAATTGCATCAACC  
ACTATTTTCCGCGACGAATTTGTTTTTAATGATACCTACCACCAGCCAACTCTACAACGCTGAAAAACGTTGGACAGATTATTCTTTTGAATATCCT  
ATTTGAGTTCTAGACAATGAACCTCTTATCCTAACACCATTAGAGTACGGAATTGGCAAAACAATTGCACAATTCTATGAGCTTCATCACATGTCA  
TTAAATCAGATGATTACAACCTAGTACCGTTCCCTACAGCAGCTAGCCCTATCTTTGTGAGGATGGGAGCAACATTTCTTCCCAAACTCTCATTCAAT  
CGCTATTTGGATAAAGAGTGCAATGTCTACCATTTTTCATAAGAATAAGTTATTTTCAGAGTACATTATGATTATAAAAAAGATGTTGAATTATCT  
GGAATTGCTCTCTACTTTTATAAGCTTTTTTAACCAAG

## SEQ ID 38

MKNQQKLMYLESEIYLSNITKAAHLFISQPYLSKVIKQLENELEIKLIQSQGHQTFITYAGORYLFYLKEIDMIERQMAKELYLIRSDKKGEITL  
GINSGLASSILANVLPKFNLEHPEISVKLENNQNISEQLVASGDI DLAVGMAPILYKDGIASTTIYRDELFLMIPPTSQLYNAEKRQIIPFEYP  
ISVLDNEPLILTPLEYGIGKTIAGFYELHHMSLNQMITTSTVPTAASLSLSGMGATFVPQTLIHRYLKDECNVYHFHNKLPSEYIMIKKDVLS  
GIALLLYKAFLTK

## SEQ ID 39

TTGATAAGACAAGGAGAATCCTATTTGGATATTAAACAAATTCGTTATTTTATCGCAATCGTTGAAATCATTTTAACTTGAGCCAGCGCGCGGAA  
CTGTTGTATGTGTCGACGCGACACTTAGCATGATGATCAATGATTTTGAAGGAGAGAAATGTTAAGCTCTTCAAACGAAAAAGAGGTCTGATT  
ATTGGGTTAAACCTATCTTGGTGATAATTATTATAAGGACGCTCAAAAGGTTCTCAGTCTCTATGATGACATGTTTTTGAATTCATGATCAGAGT  
AAAGGGTTAAAGGGAAGTATCAATATTGGTATTCCTCCTCTTATTTTATCAGTTGTTTTCTCAGAAGTAATGCCAAAATGATTTTAGAAAAATCCG  
GGGATTCAAATTCATGTTAAAGGAGATTGGTGCTTACCAACTAAAAAATGAACCTACTCGTGGGAAATGTTGACGTGCGAGCTCTGTTTATCCCAACA  
GGCATCGCTGATAATTTGGTTGAGACTTATGAAATCCAGAGATCAGAATTATCTGTATGCTGTCTCCACGCCATCGTTTAGCTTCCAAAAAAGTT  
ATTCAGTGGGAAGATTTAACAGATGAACAACCTTGCCCTATTTGATCCTAGTTTCATGTTTACCATTAGTGTTTGAAGCTTGGGAGCGTCACCAA  
GTCAGACCTAATATTATTTGACGTCCCTCTCTGGGATTTTATGCTTAATCTACCAAGATTAATCACAACGCTCTTAACCTATTTGTCCTCAAACT  
ATTACAGAATTATCACTAAATTAAGGACATTAAGTGATTTCCATGGAACGCTCCATTTCTTGGCGTGTGTCTTAACACGCTCCGGAAGAAAGT  
TATCTGAAATAGAAGCTACATCATGGACGACTTGCTACAGTCTTTTTTTTAAAG

## SEQ ID 40

LIRQGESYLDIKIRYFIAIVENHFNLSQAABELLYVSQPTLSMMINDFEKRENVKLFKRKRGRIGLTYLGDNYKDAQKVLISLYDDMFLKLHDHS  
KGLKGSINIGIPPLILSVFSEVMPKLIENPGIQFNVEIGAYQLKNELLVGNVDVAVLLSPTGIADNLVETYEIQRSSELSVCLSPRHRLASKKV  
IQWEDLTDEQLALFDFSMVHHLVLEACERHQVRPNIIILTSSSWDFMLNSTKINHNVLTICPKPITELYQLDKICPIMERPISWRVVLTRLRKKS  
YSEIEAYIMDDLLQSFFK

## SEQ ID 41

ATGGCCAATGCATCTTTGCGACATCAATTATTTGAAAAAATTGACCAAAAAATGTGATCAAAATGGTTGCTATTTCGTCTGCTATTTCATGAAAAATCCC  
GAATTATCAATTTAAAGAGACAAAAACAGCAGCTTATATTTTACAGATTTTTATAAGGTAAGGACTGTCTGTTTACAGACAAATTTGGTGGTATGAAT  
GGCGTCGTAGTTGATATCTATGGTGATAAAGCGACAGATAAGCCCATCAACACATTGCTTTGAGAGCCGACTTTGATGCTCTTCCAAATTCAGGAA  
GAGACAGGGCTTTCTTTTGCTTCAAAAACAGCGGGCGTCATGCATGCTTGTGGACATGATGCCCATACAGCTTATTTATTGATTTTGGCTGAGAGC  
TTGATTGAATTAATAATCAGAATTTTCAGGTCATATCCGTATCTTACATCAACCGGCTGAAGAGGTGCCACCAGGCGGAGCAAAAGCAATGATTGAA  
GCAGGATGTTTATAGATGGCATTGATGCTGTCTTGGTATCCATGTTATGTCTCAACGATGGAAGAGGGAAACGGTACAATATCACGCGAGTCCCATTCAA  
ACAGGGCGTGCCACTTTTAAAGTTATTTTGAAGGTAAGGGTGGACATGGTTCCATGCCACATCGTGCAAATGATACAATTTGCTTGCAGCTTCTAGT  
TTTGTATGAGCAGCGCAACGATTGTCTAGTCGTCGAGTTAATCCATTGACACAGCAGTAGTTACTATCGGATCTTTTGATGGTAAAGGTTCTGCT  
AATGTGATCAAGAATAGTGAACCTTAGAAGGTGATGTGCGCGTGATGTCTGAAGAGACACAGAGGTGTTGTTGAGGAGGAATTTAAGCGTATTCTA  
GATGGAATAGCACAACTTATGTTAGTTATCAGTTAGATATCAGAATGATATCCTGTTTATAGTTAATAACAGTGAAGTGACACAGAAAGTT  
GCAAATAGTTTAAATCTGTTGCTATAAAAGAAATTTTAGATGTCTATTGATTGCGACCCCTCAAACGCGCTCTGAAGATTTTGCTTATTATGCTCAA  
ACAATCCAGCTTGCTTTCTTATGTTGGAGCACATGAAGAGGGGCAACCATATTACCCACATCATCATCAAAATTTCCAAATTGCAGAATCATCA  
TTGATGGTATCTGCTAAATCAATGGCAACAGCAGCGCTTGCTATGCTTGTAGAAGGAGAA

## SEQ ID 42

MANASLRHQLFEKLDQKCDQMVAIRRYLHENPELSFKETKTAAYISDFYKGDCHVQTQFGGMNGVVVDIYGDKATDKPIKHIALRADFDALPIQE  
ETGLSFASKTAGVMHACGHDAHTAYLLILAESLIELKSEFSGHIRILHQPAEEVPPGGAKAMIEAGCLDGDIDAVLGHIHVMSTMEEGTVQYHAGPIQ  
TGRATFKVILQGGHGHSMFHRANDTIVAASSFVMAAQTI VSRVRNPFDTAVVTIGSFDGKGSANVIKDSVTLLEGDRVMSSETRGVVEEFKRIIL  
DGLAQTYGVSYQLDYQNDYFVLVNNSEVTQKVANSLSKVAIKEILVIDCDPQTPSEDFAYYAQTI PACFFYVGAHEEGQPPYPHHHPKFQIAESS  
LMVSAKSMATAALAMLVEGE

## SEQ ID 43

ATGTTAACGACAAAAGGAAAAATTCAAAGGAAATAACAAATTATTTGGTGGGAATTGTACTCGCTGTACTATCATTTTGGTTATTTGCACAGTCTATT  
TTAAACATGGGACCAGATGTTTCACTCATCATTAGGTATTTTCACTCTGTTGCAATGGATATTGGTGTCTCAAGTACGGCATTGTTTTAGGTTTATTT  
ATTGTTGTAACCTGGTGGTTTAGCAGATAAACTTGGTCGAGTTAAATTTACTTTTATTTGCTTTGCTTAAATATTATTGGTTCTCTACTAATTGTT  
TTAGCTAATGGAGCAGTGTCTATTATTATGGGACGTTATTTTCAAGGATTGGCAGCAGCTTTTATTATGCCATCAACAATGGCCTTGGTTAAACG  
TACTATGATGGTAAAGATAGACAACGTGCAGTTAGTTTCTGTGTCATCGGATCGTGGGGTGGCTCAGGTCTATGTTCTTATTTTGGTGGAGCGGTG  
GCAAGTACTCTAGTTGGCGTTATGTCTTTTCAATCATCGCATCAGTAGTTAGTTTCTATTAATTTTAGGAACCCAGAAAGTAAAAAT  
GTTGGACAAAAAATCACTTTGATTACCTTGTGTTTAAITATTTTATTATTTCAATGTTATCGTTAAATATTGGGATATCTATGGCTCAGGAACAT  
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ATTGACTTTTCTGTTTGAAGATCGATTTTACTTAGGTGCGACAATATCAAATTTCTTACTGAATGCAGTTGCAGGAACCTGATTGTTATTAAT  
ACTTACATGCAACAAGTCGCCAGCTAACACCAAAGTTGCAAGGTGAATGTCTTTAGGCTATTTGGTTTGTGACTAATTTGCTATCCGAGTTGGT  
GAGAAAAATTTACAAAGTTTGGTGGCCCGTAAGCCAAATGCTTTTGGGAGCTATGAGTACATTTGTTGGGATATTTTAAATGACTTTGGTCAATATT  
CAAGGACCTTTGATCTTTGTGTTAGTCTTTGTTGGTTATGCTTTTATTGGAAACAGGCTTGGGATCTATGCGACACCATCAACAGATACAGCTATT  
TCTAGTATCTTAATGAAAAAGTAGGTTCTGCATCTGGAATTTACAAAATGGCAAGTTCACTAGGTGGTGAATTTGGTGTAGCAACTTCAATTGCG  
ATTTATCATGCTTTTCTGTTAATGCAGATTTTCAAAAGCAGCTTTGTGTGGATTAATTTTAAACCTAGTTTTTGTAGTCTATCGATCTTATCA  
ATCTTTTTTGTATCCCTAAGAAAAATTGAGGATAAA

## SEQ ID 44

MLTTKENFKGNKLLVGLVAVLFWLFAQSILNMGPVQSSLSGSSGAMDIGVSSALFSLFIVVTGGLADKLGRVKFTFIGLCLNIIGSLILV  
LANGAVLIFIMGRIFQGLAAAFIMPSTMALVKTYDGRQRAVSFWISGWSGSGLSYFGGAVASTLGWRVVFIFSI IASVVSFLLILGTPESKN  
VGQKTHFDYLGILIFIISMSLSNIGISMAQEHLMNVIPLSLFTVMLIGFVLFYVETRKSNSFIDPHLFENRFYLGATISNFFLNAVAGTLIVIN  
TYMQQGRQLTPKVAGEMSLGYLVCLIAIRVGEKILQRFGARKPMLLGAMSTFVGIFLMTLVNIQGPLYLVLFVGYALFGTGLGIYATPSTDTAI  
SSIPNEKVSASGIYKMASSLGAIGVATSIAYHAFSGNADFHKAALCGLILNLVPCSLSILSVIPKIIDK

## SEQ ID 45

ATGTCACATCATCAACAAACCGTTTCAAACAAACAATTATGGCGATTATCGCCATAGCACTCATTGGTTTTTCAGGAATTTTGTCTGAAACCAGT  
ATGAATGTCACCTTCCGACACTGATGTCAGTCTATCAGTTACCTTTAAATAGCTTGAATGGATGACGACCATTATTTACTAGCAGTGGCGATT  
ATGATGACCATTTCGGCTACACTGAAAAAAATGTGCGGGAAGACCCCTCTTTTTATGGCCACAGGTCTTTTTACATTTGGCACCATCTTGGCC  
GTTCTGACCCAGTCTTGGCATCATGTTGCTAGCCCGCATTTTCAAAGGCATTGGTACTGGTCTGGTAATGCCTCAGATGTTAATATTATTTTA  
GAGCGTGTCCCAATGCATAAGGTAGGTCTATTATGGGATTGTGCTGTTTATTATTAGCTTAGCACTGCTTTTGGGCCCTACTTATGGGGGCTTT  
ATGATTAGCCATTTTAGTTGGCAATGGATTTTATCTGTATACCTCCCTGTACCACTGATTGCAGGTATTCTAGCTTATTATTACCTCGAAGATTCT  
CCAGTAAGCGAAAAAGTACCCTTTGACTGGTTGGCATTATTGCACTATCGATTAGCTTAACTTCTGCTTATTAGCTATTACTAGTCTAGAAAAC  
GGCAGTGTAAATTTGTATTACTTAGGGCTTTTTATTCTCAGCTTTATCCTCTTCCCTCTACAAGAATCTCACAGCTAAGCAACCCCTTTCTTGATATT  
CGCATTCTCAAAATTCCTCTCTAACCTTTGGCCTGATTCCCTTTTTGTCTTCCAGCTGATTAATTTAGGCATAAAATTTCTAACGCCAAACTTT  
ATTGTCTATGGAAAAGATTGCTAATAGTTCTCAAGCTGGTATGGTGTACTACCTGGTACCTTACTCGGAGCTCTACTAGCACCTGCTTTTGGTAAA  
CTTTATGATCAAAAAGGAGCAAGACTTTTCGCTTTATTAGGAAATGCCTTATTAGTTTATCATTGATTATTATGACACTTCAAACAAGACATTTT  
ATGCTTTTACCATTCACTCTTTTATATATTTTATTCACGTTTGGGCGTAACATGGGCTTTAATAAGCTTAGCCACGGCTATTTCGAGAATTGCCT  
GCCGAGAAAAATGCCGATGCCACGGCCATTTTTCAGATGATGCAGCAATTTGCTGGCGCTCTAGGAACCTGCTATGGCATCACTGATAGCAAAATAGT  
CAAGCAGAATTCAACGCGGTGTCAGTCTGTCTACCTTCTCTTACTATTTTTGCTCTACTTGATTTTATCTTTTTCTTTGCTATGTTTTACCAT  
TTAGGGAAAAAAGGATTAGCC

## SEQ ID 46

MSHHQQTIVSKQTIMAIIAIALIGFSGILSETSMNVTFPTLMSVYQLPLNSLQWMTTIYLLAVAIMMTSATLKKNVBRPLFFMATGLTFGTILA  
VLTQSFAMLLARIFQIGTGLVMPQMFNIILERVPMHKVGLFMGFAGLIISLAPAFGPTYGGFMISHFSWQWIFICILPVLIAIGILAYYYLED  
PVSEKVPFDWLAFLIALSISLTSALLAITSLENGSVNLYLGLFILSFLFLYKNLTAKQPFDIRILKIPSLTFGLIPFFVQLINLGINFLTPNF  
IVMEKIANSSQAGMVLPLPGLTLLGALLAPAFGLYDQKGARLSLYLGNALFSLSLIIMTLQTRHFMPLPFTLLYLIFTFGRNMGFNNSLATAIRELP  
AEKNADATAIFQMMQFAGALGTAMASLIANSQAFTSGVQSVYLLFTIFALLDFIFFFAMFYHLGKKGLA

## SEQ ID 47

ATGAGTTTATCCATCATGACAAAAACAAACACCTAACTCTCTTAGACCGTAATGACATCCAATCTGGTTTGGATAGAGGAGAAACCTTTAAAGCC  
ATCGGGCTTAATCTACTGAAACACCTTACTACTATCGCAAAAGAAGTCAAACGAAATAAGCAACTAAGAGAATCAACCAAAAGACTGCCTAGACTGT  
CCGCTACTAAGAAAAGCTCCCTATGTTTGTAAATGGGTGTCCAAAGAGGAGGATCAACTGTGGTTACAAGAAGACCTTCTATCTTGCTAAGCAAGCT  
CAAAAGAACTATGAAAAAATTTAGTTGAATCTAGAGAAGGAATCCCTTTGAACAAAAGAGACCTTCTGGAATAATAGATGATGCTGCTTCTAATGGG  
GTCAAGAAGGGCCAACGTATCTATCATATCTTCAAAACCAACGATCTAGAAGTGAGTTCTTCAACCGTTTATCGACACATCAAGAAGGCTACCTA  
TCCATCACACCAATCGACCTACCCAGAGCTGTGAAGTTCAAAAAAAGGCGAAAGAGCACACTCCCTCCTATTCCAAAAGCGATTAAAGAAGGCGGA  
CGGTACGAGGATTTTATAGAACACATAACNNNNNTTAA

## SEQ ID 48

MSLSIMTKHKHLTLLDRNDIQSLDRGETFKAIGLNLKHPITIAKEVKNRKNQRESTKDCDCLPLRKAPYVNCGPCRRKINCGYKTFYLAKQA  
QRNYEKLIVESREGIPLNKETFWKIDRVLSNGVKKQRIYHILKTNDESVSSSTVYRHKKGYLSITPIDLPRAVKFKRRKSTLPPIPKAKEGR  
RYEDFIEHITXXN

## SEQ ID 49

ATGGCTAAAAAAGTTGAAAACTTGTAATACTTCAAAATCCTGCTGGTAAAGCAACTCCAGCTCCACCAGTTGGACAGCACTTGGTCAAGCAGGA  
ATCAACATCATGGGATTCACTAAAGAGTTTAAAGCTCGTACAGCTGATCAAGCTGGTATGATTATTCCAGTTGTTATCTCAGTATATGAAGACAAA  
TCATTTGATTTTCATCACTAAAAACACCAGCTGCTGTTCTTTTGAATAAAGCTGCAGGTGTGAAAAAGGATCAGGTGAACCTTAACAAAATCAA  
GTTGCAACAATTACTCGTGCGCAAGTACAAGAAATGTCTGAAACTAAAATGCCAGATTTAAACGCTGCAACCTTGAGTCTGCAATGCGTATGATC  
GAAGGTACTGCTCTGCTTATGGGATTCACTGTTACTGAC

## SEQ ID 50

MAKKVEKLVKLQIPAGKATPAPPVGPALGQAGINIMGFTKEFNARTADQAGMIIPVVISVYEDKSFDFITKTPPAVLLKKAAGVEKSGEPNKT  
VATITRAQVQIEAETKMPDLNANLESAMRMIEGTARSMGFTVTD

## SEQ ID 51

ATGCAATATTGCATATCTGTGGGAGGTAAAAATCTCAATTACCGCCAAAACCAACAGGAGGATTTTAAATGGCTAAAAAAGTCGAAAACTT  
GTAAAACTTCAAATCCCTGCTGGTAAAGCTACACCAGCTCCACCAGTTGGACAGCTCTTGGTCAAGCAGGTATCAACATCATGGGCTTCACTAAA  
GAATTTAACGCTCGTACAGCTGATCAAGCTGGTATGATCATCCAGTTGTTATCTCAGTTTATGAAGACAAATCATTGTATTTCATCACTAAAAACA  
CCACCAGCTGCTGTTCTTTTGAATAAAGCTGCAGGTGTTGAAAAAGGATCAGGTACACCTAACACTACTAAGGTTGCGACAGTTACTCGTGACAAA  
GTACAAGAAATGCTGAAAACTAAGATGCCAGATTTGAACGCTGCAACATTGAAGCTGCAATGCGTATGATCGAAGGTACTGCTCGTTCTATGGGA  
TTCCTGTTACTGAC

## SEQ ID 52

MQYCISVGGKNLNYRQNHNRRIFKMAKKVEKLVKLQIPAGKATPAPPVGPALGQAGINIMGFTKEFNARTADQAGMIIPVVISVYEDKSFDFITKT  
PPAAVLLKKAAGVEKSGSTPNNTTKVATVTRAQVQIEAETKMPDLNANIEAAMRMIEGTARSMGFTVTD

## SEQ ID 53

ATGGCTAAAAAAGTAAAACTTACGTGCTGCTCTTGAGAAAAATTGATAGCACTAAAGCATAACAGCGTAGAAGAAGCTGTAGCTCTTGCAAAAAGAA  
ACTAACTTTGCTAAATTTGATGCACTGTTGAAGTTCTTATAACCTTAAACATTGACGTTAAAAAAGCTGACCAACAAATCCGTGGTGCTATGGTT  
TTACAGCAGGTACTGGTAAAACTTACGTTGTTCTTGTGTTTGGCTCGTGGTGCTAAAGCTGAAGAAGCTAAAGCAGCAGGTGCAGACTTTGTCGGT  
GAAGATGACTTAGTTGCTAAAAATCAAGGTGGATGGCTTGACTTTGATGTTGTTATCGCAACACCAGATATGATGCGACTGTTTGGACGCTTTGGA  
CGTGTCTTGGACCTCGTAACCTTGATGCCAAACCTTAAACTGGTACAGTAACATGACGTTGCTAAAGCAGTTGAAGAGTCTAAAGGTGGTAAA  
ATTACTTACCGTGCTGATAAAGCAGGTAACGTCGAAGCCCTTATTGGTAAAGTTTCAATTTGATGATGCTAAATTAGTTGATAACTTCAAAGCATTT  
AATGATGTTATTGTTAAAGCTAAACAGCTACTGCAAAAGGAACTTACATCAAAACCTTTCAATTACAACAACACAAGGTGTTGGTATCAAAGTT  
GATCCTAACTCACTT

## SEQ ID 54

MAKSKNLRAALEKIDSTKAYSVEEAVALAKETNFAKFDFATVEVSYNLNIDVKKADQQIRGAMVLPAGTGKTSRVLVFARGAKAEEAKAAGADFVG  
EDDLVAKIQGGWLDFOVVIATPDMMALVGRVLRVLPNLMNPKTGTVTMDVAKAVEESKGGKIYRADKAGNVQALIGKVSFDDAKLVDFNFKA  
NDVIVKAKPATAGTYITNLSITTTQGVGKIVDPNSL

## SEQ ID 55

ATGGCTAAAAAAGCAAAACAAATGCGTGCTGCACCTGAAAAAGTAGATAGCAAAAAAGCTACAGTGTAAGAAGCTGTAGCATTAGTAAAAGAA  
ACGAACCTTCGCAAAATTTGATGCGCTGTTGAAGTTGCTTACAACCTTGAACATTGACGTTTCGTAAAGCAGACCAACAAATCCGTGGCGCAATGGTA  
TTGCCAAACGGAACCTGGTAAAAACAAACGTTCTTGTGTTTGGCTCGTGGTGCTAAAGCTGAAGAAGCAAAAGCAGCTGGTGACAGCTTCGTAGGT  
GAAGACGACCTTGTTCGAAAAATCAATGGTGGATGGCTTGACTTTGACGTTGTTATCGCAACGCCAGACATGATGGCTATCGTAGGTGCTCTTGA  
CGTGTCTTGGACCTCGTAACCTTGATGCCAAACCTTAAACTGGTACAGTAACGATGGATGTTGCTAAAGCCGTTGAAGAGTCTAAAGGTGGTAAA  
ATCACTTACCGTGCTGACAAAGCAGGTAATGTTCAAGCTCTTATTGGTAAAGTTTCAATTTGATGCTGACAAATTGGTTGAAAACTTCAAAGCCTTC  
CACGATGTAATGGCTAAAGCTAAACCTGCAACAGCTAAAGGAACTTACATGGCAACGCTCAATCACATCAACACAAGGTGTTGGTATCAAAGTT  
GATCCTAACTCACTT

## SEQ ID 56

-7-

MAKKSQMRRAALEKVDSTKAYSVEEVALVKETNFAKFDASVEVAYNLNIDVRKADQQIRGAMVLPNGTGKTQRLVLFVARGAKAEAKAAGADFVG  
EDDLVAKINGGWLDPDVVIATPDMMAIVGRLGRVLGPRNLMNPNTGTVTMDVAKAVEESKGGKITRADKAGNVQALIGKVSFDADKLVENFKAF  
HDVMAKAKPATAKGYMANVSITSTQGVGKIVDPNSL

## SEQ ID 57

TTGGTAAAAATGAGACGTAACATATTATTGAGCATTAATTGTTTTATTGATGGTGACTCTGACTGCATGCCATTACAGGATAGCAAAAGTCATAAA  
CTAAACAGTGATAAACTCACGCTTGCTTGGGGAGAAGACTTTGGTGATGTTAATCCGCATCGCTATAACCTGATCAGTTTGTATCCAGGATATG  
GTTTATGAGGGGTTGGTAGCATATGGTGACAATGGGAAAATTGAACAGCTTTAGCGAAAAGCTGGAGCATTAGTCAAGATGGAAAAACCTACACT  
TTTAAATTGAGAAATGCTAAATATTCTGATGGCAGTAACCTTAATGCTGCGAATGTCAAACGTAATTTTGATAGTATTTTTTCGAAGTCTAATAGA  
GGTAATCAAAATCTGGTTAACTTTAACGAATCAATTGGAATAATTAATCGTGCTTGAATGTAATCAAGTACTTTTGAAATGAACTGAAACAGACTTTATAGT  
GCTACTTTATATGATCTCTCTATGATTGACCAATTCGCTTTTTATCTGATAGCGCTTTCCCTAAAGGTGATGATACAACTAAGAAGAATGTAAAA  
AAACCAATTGGAACGGGTCAATGGGTTGTGAAAAGTAAAAAGCAAAATGAATATATTACCTTCAAACGTAATGAGAATTAAGTGGGAAAGAAACCA  
AAATTAAGAAGTAACCGTAAAGTTATACCCGATGCTCAGACGCGTGCTTTAGCATTGCAATCAGGTGACGTTGATTTGATCTATGGGAATGGC  
ATTATTTGGTTTAGACACTTTTGCCCAATATACGAAGGACAAGAAATATGTCACAGCTATTCTCAACCTATGTCACCAAGACTTTTGTGCTAAAT  
GCTAAGGAAAGTATTTTCCAAGATAAAAAAGTTGCTCAGGCAATGAATCATGCTATTGACAAGGTTTCTATTGCTAAGAACACCTTTAGAGGAACA  
GAAAAGCCAGCAGACACTATTTTTTCAAATCAACATCTCACTCAGATGCTAAGTTAAATCCTTATAGCTATAATGTTGATAAAGCAAAATCAGCTA  
TTGGATCAAGCTGGTTGGAAGATGGGAAAAGATAAGGTTGCTGAAAAGATGGTAAAACTCTAACCTTACGTTCTCTTATATCGCCACTAAGGCA  
ACTGATAAAGACTTGGTAACTTATTCCTAAGGAGAATGGCGTAAATCGCTATTAAATGTTTCTCTTATTGCTATGGAAGAAAGATTAATGGGCT  
AATGCTAAAAAGGGTAATTTTGATATGATGTTAACCTATTCTTGGGGAGCACCATGGGACCTCATGCTTGGATGTCGGCATTAACTGCCAAGGCA  
GATCATGGACATCCAGAAAATATAGCTTTAGAAAATCTAGCAACTAAACTGAAATGGATAGACTTATTAAGTCAGCTCTAGTAGATCCTAAGGAA  
GAAAATGTTGATAGAGACTATAAGAAGGTTCTTGAATTATTGCATGATGAGGCTGTATATATCCATTAACTTATCAATCGGTGATTTCTGTTTTAT  
AGGAAAGGTGATTTTAAACCATGCGTTTTGCGCCAGAAGAAAATTCATTCCTTACGCTATATAGAAAAAACAATGTATCTAAG

## SEQ ID 58

MVKMRNILLSITCLLMVLTACHSQDSKSHKLNLDKLTAWGEDFGDVNPHRYNPDQFVIQDMVYGLVRYGDNKIEPALAKSWSISQDGKTYT  
FKLRNAYSDGSNFNAANVKRNFDISFSKSNRGNHNWFLNTNQLBNYRALNQSTFBIKLKQAYSATLYDLSMIRPIRFLSDSAFPGDDTTKKNVY  
KPIGTGQWVVKSKKQNEYITFKRNNYWGKKPKLKEVTVKVIPAQTRALAFESGDVLDIYNGIIGLDTFAQYTKDKKYVTAISQPMSTRLLLLN  
AKESI FQDKKVRQAMNHAIDKVSIAKNTFRGTEKPADTIFSKSTSHSDKALNPYSYNVDKANQLLDQAGWKMGDKVREKDKGLTLRLPYIATKA  
TDKDLVTTYFQGEWRKIGINVSLIAMEEDDYWANAKKGNFDMMLTYSWGAPWDPHAWMSALTAKADHGHENIALENLATKTEMDRLIKSALVDPKE  
ENVDRDYKKVLELLHDEAVYIPLTYQSVISVYRKGDFTKMRFAPEENSFLRYIEKNNVSK

## SEQ ID 59

TTGATTGTGTCAAAATACCTAAATACTTCTCTATTATCAGCTTATTTTTGACTGGGCTATTTTAGTTGCATGTCAACAAACAAAGCCTCAAAACA  
AAAGAACGTCAGCGCAAAACAAAGCTCCAAAAGACGAACTTGTGCTTTCTATGGGGGCAAGCTCCCTCATGAATTCGATCCAAAGACCGTTATGGA  
GTCACCAATGAAGGGAATATCACTCATAGCACTTATTGAAACGTTCTCTGAACTAGATATAAAAGGAGAGCTTGCTAAACATACCCTCTCTCT  
GAAGATGGGCTGACTTGGTCGTTTGAAGTTCGATGATGATTTTAAATCTCAAAATGGTGAGCCTGTACTGCTGATGATGTTAAGTTTACTTATGAT  
ATGTTGAAAGCAGATGGAAGGCTTGGGATCTAACCTTCAATGAAGACGTTGAAGTGTGGGAAAAATCAGGTCAATATCCATTGACTGAGGCG  
CATTCGACATTTACAGCACAGTTGACTGAAATCCCAATCGTCCCTAAAAAACATTACAATGATAAGTATAAGAGCAATCTCATCGGTTCCAGGACCT  
TACATGGTAAAAGAAATATAAGGCTGGAGAACAAAGCTATTTTTGTTGCTGTAACCTTATTGGCATGGGAAAAAACCATACTTTAAAAAATGGAAGCTTGG  
GTCTTACTTGAAGAAAACACAGCACTAGCAGCTTTAGAAATCTGGTGATGTTGATATGATCTACGCAACGCCAGAACTTGCTGATAAAAAAGCTCAAA  
GGCACCCGCTCTCTGATATTCATCAAAATGATGTGCGCGCTTATCATCTTATGTGAAAAAGGGCGCTCATCACTGATTCTCTGATGTTGTTAT  
CCTGTAGGAAATGATGTCTACTAGTGATCCAGCAATCCGAAAAGCCTTGAATTTGTTTAAATAGGCAAAAAAGTTCTCGATACGCTTTTAAATGGT  
TATGGTAAACAGCTTATTCAATTATTGATAAAACACCAATTTTGAATCCAAAAACAGCCATTAAAGATAATAAAGTAGCTAAAGCTAAGCAATTA  
TTGACAAAAGCGGGATGGAAAGAACAAGCAGACGCTAGCCGTAAGGTTGACCTTGATGCAGCGTTTGATCTGTACTACCTTACTAATGATCAA  
TTGCGAGCGAATGAGCTTGAAGTGAAGCAGCAAGCCAGCCCTAGGAGTACTTAACTCAAAAGCTAGTAAGTGGGATGAAATGGCAACG  
AAGTCACATGACTCAGCCTTACTTTATGCGGAGGACGTCATCGCGCAGCAATTTTATGAATCGCATCATCCAGCCTGATGAGGAAAGGTTGG  
ACCAATATTACGTTTATAACAATCCTACCGTACTAAGTACCTTGACAAAGCAATGACATCTTCTGACCTTGATAAAGCTAACGAATATTGGAAG  
TTAGCGCAGTGGGATGGCAAAACAGGTGCTTCTACTCTTGAGAGATTGCCAAATGTATGGTTGGTGAGCCTTAACCATACTTATATTGGTGATAAA  
CGTATCAATGTAGGTAACAAGCGCTCCACAGTCATGGTCATGATTTGGTCATTATTGACTAACATTGCCGAGTGGAATTTGGGATGAATCAACTAAG

## SEQ ID 60

LIVSKYLKYSIITFLTLGLILVACQQQKPKTKERQKQRPKDELVVSMGAKLPHEFPKDRYGVHNEGNITHSTLLKRSPELDIKGELAKTYHLS  
EDGLTWSFDLHDDFKFSNGEPVTADDVKFTYDMLKADGKAWDLTFIKNVEVVGNQVNIHLTEAHSTFTAQLEIPIVPPKHYNDKYKSNPIGSGP  
YMKKEYKAGEQAI FVRNPNYWHGKKPYFKKWTWVLLDENTALAALESBGSDVMDIYATPELADKKVKGTRLLDIPSNDRVGLSLPYVKKGVITDPSDGY  
PVGNDVTSDFAIRKALITGLNRQKVLDTVLNGYGKPAYSIDKTFPNPKTAIKDNKVAKAKQLLTGAGWKEQADGKREKDLDAFLLPYIATNQ  
LRANLAVEVAEQAKALGITIKLKASNWDEMATKSHDSALLYAGGRHHAQQFYESHHPSLAGKGWNTITFYNNPTVTKYLDKAMTSSDLDKANEYWK  
LAQWDGKTGASTLGLDLPNVWLVS LNHTYIGDKRINVGKQGVHSHGHDSLLTNIAEWTDWDESTK

## SEQ ID 61

ATGATCTAAGTAGTTCGATCATCAAAAAATATTGTGACGCTTTTTTGGCATTTGTTTTCATATCACTTCTAACATTTATTTCTTATCAAACTATCA  
ACAGTTAATTTCAGCAGAAAATTACCTTCGTTTATCAAAAATAAGTGTTAGTCCAGAAGCGCTAAAAGAAGCAGAGCATTATTTAGGTTTAGATAAG  
CCATTATGGAAGCAGTACTGGCTGTGGTTCCAAAAAGCATTAACAGGAGATTTTGGATATTTCTTATGTGCTCAGGTGGCCAGTATTAGATTGGTT  
TTACAACGGTTTTTGGCTACTTTATTTTTAGGCACGAGTGCTCTTCTGCTAATTGTTACCATTTCTACCCCGTTAGGTGTGTGGGCTGGCTTACAT  
GAATCTGCTCGGAGTCACTTGTATCGATTTTTGAAGTTTCTTAGTGCTCTATGTCCTCAAAATTTTGGGTTGCTTACTTGTGTGCTGCTATTT  
TCGGCAAAATTAAGTATTTCTGCTGTTTTCAGGAGTGAACGATTAACAAAGTTTAAATTTTGGCAAGTATTACCTTAAGTTTCTACCGTAGGTTCAA  
TACATAGCCCTTATTGAAAAGCTATTAGTCAAGAAAATAGAAGTTTAAATGTGGAATAAGTCCGATTAAGAGGAGTAAAGAACGTTATATTGTC  
ACACATCACTCTCTAGAAATGCCTTACCTGCGATAATGACAGCACTTAGCTTGACTTGGGTTTACTTATTAACAGGATCAATATTGTTGAAGAA  
ATTTTTTCATGGAATGGAATAGGACGTTTATTGTGACCAAGCTTAAGAATCTCAGATCTTCCAGTAATACAAGCTTGATGCTAATTTTTGGAACC  
TTATTTTTAGCTAATAATTTATGACACAGTGTTTATGAATTGGGTTGATCCTCGGTTACGAAAGTCAAGGGAGAGAA

## SEQ ID 62

MYLSSSIKKILSAFLALFFISLLTFILIKLSTVNSAENYLRLSKISVSPALKEAEHYLGLDKPLWKQYWLWFQKALTGDFGYSYVLRPLVLDLV  
LQRFALTLFLGTSAFLLIVTISTPLGVWAGLHESARSDHLIRFLSFSSVSMPNFVWVAYLLMLLFSAKLNLPLVSGGNDLQSLILPSITLSFSTVCGQ  
YIALIRKAISSQENRSLNVENARLRGVKERYIVTHLLRNALPAINTALSLTWVYLLTGSIIVEEISFWNGIGRLFVTSIRTSDDLPIVQACMLIFGT  
LFLANNFMTQCFMNVWDPRLRKSREK

## SEQ ID 63

GTGAAACGTAACCATTTATCATCTGGAAAATCATCAGATGTGTACGCTTATTTTTGGGGTATCTGTTTTGACCTTCGTTTTGTTAAAAACAA  
TCTCCAGTAGATCCAGTCATGGCAAGTGCAATTTATGACACATCACTAACCCCTGCTCAGTACAAAGCGATTGCTCACCCTATGGCTTGGATAAG  
CGAGCTCAGTCCAAATTTTATTTGGTTGAAAATGTGATACAGGAGATTTAGGGACCTCGCTCGTTTATCGGCAACCTGTTAGTGATATTATT  
AGATCACGGGCAGGTGCTTCTTTCATCTTATGGGACTCTCTTGGATCTTATCGGCTCTTATTGGATTATCTTAGGAACGTTATCCGCTTTCCAT  
CAAGGGAATTAATTGACCGAGTTGTCAGGTGGTTTTCATACCTTCAGATATCAGTACCAACGTTTGGATTGGACTCATTTTTTTATTAACTCTTT  
TCTGTCCAGCTGGGGTGGTTCCCGATTGGTATTCTTCCCGATAGGCACCTTTGAGTCAAGATAATTACGTTAGCTGATCGAGTTAAGCACCTTATG

TTACCTGTTTTTCACGCTAAGTATTCTAGGCATTGCCAATGTACCCTTCATACGAGAACTAAAAATGATGTCGGTGCTTTCTAGTGAATATGTCTTA  
TTTGCCAGAGCGCGTGGGGAAACACAGTGGCAAATTTTAAACATCATTCGCTTAGAAATGCTATCGTACCAGCTATTACACTGCATTTTCTCTAT  
TTTGAGAATTGTTTGGAGGATCTGTTCTTGTCTGAGCAAGTTTTCTCATATCCTGGCTTAGGGTCTACCCTCACTGAAGCAGGACTTAAAGTGAT  
ACACCGCTCCTTCTAGCTATTGTGATGATAGGGACATATTTGTTTTTGC GGCAATCTTATTGCGGATATTTTAAATAGCATCATCAATCCACAG  
TTAAGGAGAAAAAGTA

## SEQ ID 64

VKRTTIIIIWKIIRCVTLIFGVSVLTFVLLKQSPVDPVMASVNYDTSLTPAQYKAI AHYGLDKPALVQYFIWLKNVIQDGLGTSLVYRQPVSDII  
RSRAGASFILMGLSWILSGLIGFILGTLBSAFHQKLLDRVVRWFSYLQISVPTFWIGLIFLLIFSVQLGWFPPIGISSPIGTLSDITLADRVKXLM  
LPVFTLSILGIANVTLHTRTKMMSVLSSEYVLFARARGETQWQIFKHHLRINAIVPAITLHFSYFGLFSGSVLAEQVFSYPGLGSTLTEAGLKSD  
TPLLLAIIVMIGTLFVFNAGLIADILNSIINPQLRRKV

## SEQ ID 65

TTGTTAGTGATTAGTGCCATTTTGGCCCCATTCTATCTAGCTTTGATCCCAATACGTAGATTTATCACAAAAATTATTGGCTCCCAATAATGTT  
CATTTGTTTAGGACTGACCAATTGGGTAGAGATGTATTATCTCGCTTGCTTTATGGTGCTAGATATTCAGTGTTTTAGCTATTATTAGCTTA  
TTGGAATTAACGATTGGTATGTTTGTGGGTCTTATTGTTGGTTGGTATCAAGGAAAGTTAGAAAACTCTTTTATGGAATAGCTAATATTATTTTA  
GCTTTTCCGAGCTTTTGTCTCTCTTGTCAACCGTGGGAATCTTAGGTCATGGTCTAGGGAATTTAATTTTTGCAATTGTCTTTGTGGAATGGGTT  
TACTATGCTAAATTAATGACCAATTAGTTAAGAGTGCAAAAAAGAGCCCTTATGTGATAAATGCGCAAATTATGGGACTTTCAGTCTGGCATATT  
TTAAGAAAAACATATTTTCTCTTGTGTATCAGCCAATCCCTGTTATGCTCTTATGAATATAGGAAATATTATTTAATGATTCTGGCTTTTCT  
TTCTTAGGGATTGGTGTGCAACCTAATGTACAGAAATGGGGAATGATGTTGTCACGATGCTAGAGGAATTTTAGGACAGCTACTTGGATGTGTTA  
TCTCCTGGAATGCGATTTTTTTAACAGTATTTTCTTTAATACTTTAGGCGATGCCATAGATAAAAAAGATTGGAACGACAATGGAACAGT

## SEQ ID 66

MLVISAI FAPILSSFDPOQYVDLSQKLLAPNNVHLLGTDLGRDVLRLLYGARYSLFLAIIISLLELTIGMFVGLIVGWYQKLENLFLWIANIIL  
AFPSFLLSLATVGLILGHGLGNLIFAI VFEVWVYAKLMTNLVKS AKKEPYVINAQIMGLSVHILRKHIFPFVYQPILVMVLMNIGNIILMISGFS  
FLGIGVQPNVTEWGMMLHDARGYFRATWMMLSPGIAIFLTVFSFNTLGDIDAIDKDKWKRWNS

## SEQ ID 67

ATGATATTGAAACGTGCAACGATGGTTTTATGGCAACTGGGTATCGCCATTTCTCTCATTCTTAGTATTCTAGCCTTAAACCTTTATTTCTATAGG  
ACGCTTTTGGAAACCAATGACGCTTTACGCAACCTCGCTCCTTCTTAAACCATCTTTTGGGACAGATGGTTTAGGTAGGATATGTTTGTGAGA  
ACGATTAAAGGGCTTTATTTCTCTTTACAAGTCGGCTTATTAGGCGCCTTATGGGAGTCTTTCTTGCAGCCGTTTTTGGAGTGCTTGCAGGCTTA  
GGAAATAGCCTTATTGATAAAATAATAGCCTGGTTGGTTGATTTGTTTATTGGTATGCCCTCATTGATTTTTATGATTCTCATTCTTTTGTGTT  
GGGAAAGGGGCTCAAGGGGTTATCATTGCAACAGCTGTTTACCATTGGCCCTCTCTAGCAAGGCTTATCCGCAATGAAGTCTATGATCTAAAGAAT  
AAAGCCTTTGTCAGCTCTCTTAAAGCATGGGAAACGCTTATTATATTGTGAGGCATCATATCCTGCCTTTGATTGCTTCTCAAATTTTCATT  
GGGTTTATCTCTTATTTCCGACGCTCATCTTGCATGAAGCATCATGATTTCTTAGGATTTGGCCTTTCTGCGCAACACCTTCGGTTGGTATC  
ATTTTGTGAGAGGACGCTAAGCATATCTCTCTTGGCAATTTGGTGGTTGGTGAATTTTCCAGGCTTTATCTTATTTTGGTTGTCAATGCCTTTGAT  
ACTATCGGAGAATCTTTAAAGAACTCTTTTACCCTCAAACGGATCATTTT

## SEQ ID 68

MILKRTMVLWQLGIAISLILSILALNLYFYRTPLETNAALRNLAFLSNHLFGTDGLGRDMFVRTIKGLYFSLQVGLLGLMGVFLATVFGVLAGL  
GNSLIDKII IAWLVDFIGMPHLIFMILISFVVGKGAQGVIIATAVTHWPSLARLIRNEVDLKNKAFVQLSKSMGKTPYIYVRHILPLIASQIFI  
GFILLFPFHVILHEASMTFLGFLSABQPSVGIIILSEAAKHISLGNWNLVIFPGLYLILVNAFDTIGESLKKLFYPQTDHF

## SEQ ID 69

TTGGAACGACAATGGAACAGTTAGAAATAAGAAAATTGTCAATACAGATAGGAGAGGTCCCTGTACTAAGAGATTTTAGTTGTAAATAGATATG  
GGAGAATCGCTAACTATTATTGGTGAGAGTGGTTACGGGAAAACCTCTTGGCAAAATTATTGGTTGGTCACATTCCACAAGGTATGACAGTTAGA  
GGAAACATATTTTTAAGGGAGTTGATTTAGGTAACTAACTGTAAAGCAGTGGCAGAAATTAAGGGACGAGATATTGCCTATTAGTGCAAAAT  
CCCATGTCTATGTTTAACTCTTTTCAAAAAATTGAAGCGCATATTTTGGAAACAATCCTTAGTCATGAGAAATGTTCAAAGAGAGTAGCCTTATCT  
AAAGCGTTAGAAATGGATGAAACGTTTAAATTAGATGATCGATATCCCTGTGTTTTAAAAATAACCTTTTGGCTTAGTGAGGAGATGCTACAAAGA  
ATTATGTTAGCCACTATATTATCTCTTGATCCTCAGGTAATCATATAGATGAGCCGACCTCAGCGGTTGATTGTCATAATTGTTCTACTATATCA  
GCTATTTTGCAGGAATTGCAAAATAATGGA AAAACCTTGATTACTGTAACGCATGATTATCAGTTAGCTAGAGACCTGGGGGGACAATATTAGTT  
ATAAGTGAGGGAGAAGTTGTTGAACAGGGACAACCAAGCTATTTTAAAGCAATCCTCAACATACTATACGAAAGCACTGACAGTGCAATGGAG  
TATGAAGGAGATATCTTAATGTTGGTTTG

## SEQ ID 70

METTMQLEIRKLSLQIGVEPVLDRFSCIDMGESLTIIGESGSGKTLAKLLVGHIPQGMTVRGNIFFKGVDLGKLTVKQWQKLRGRDIAYLVQN  
PMSMFNPFQKIBAHILETILSHEKSKRVALSKALEWMMKRLNLDALISLLKKYPFELSGMQLQRI MLATILSLDPQVILDEPTSAVDCHNCSTIS  
AILQELQNNNGKTLITVTHDYQLARDLGGQLLVISEGEVVEQQGTQAILNSNPQHNYTKALTVMQMEYEGDILNVGL

## SEQ ID 71

ATGACAAAAGAAAAATATGTAATCTTAAC TGCCAAAGATGTGGTGGTAGAATTTGATGTGCGTGATCGTGTTTTTAAACAGCTATCCGTAACGCTCTCA  
CTGGAACCTTGTGTAAGGAGAAGTCTTGTCTTTGTAGGGGAATCAGGCTCAGGTAATCTGTTTTTAAACAAAGACCTTTACAGGGATGTTGGAGTCT  
AATGGACGCATGTCTAATGTTCAATTGTCTATCGTGGGCAAGAATTGACAGATTTAAAAACAATAAGAGTGGGCAAGAGATTCGCGGCTCAAAA  
ATCGCAACGATTTTCCAAGACCCAATGACCACTTTAGTCCCATTAAAACTATCGGTAGCCAAATCACAGAAGTGATTATTAAGCACCAAAAAGTA  
AGTCATGCCAAAGCTAAAAGAAATGGCCCTTGATTACATGAATAAAGTGGGTATCCCAAATGCCAAAAACGCTTTGAAGATTACCCATTGGAGTAT  
TCAGGAGGAATGCGTCAACGTATTGTTATCGCTATTGCTTTAGCTTGTGCGCCAGATATTCTTATCTGTGATGAGCCAACAACAGCCCTTGATGTG  
ACTATTCAAGCTCAAATCGTTGAGTTATTGAAGTCGCTTCAACGAGAATATCATTTACCATTTATCTTTATTACGCACGATTTAGGTGTTGTGGCA  
AGCATTCAGATAAAGTGGCTGTCATGTATGCAAGGAAATTTGTTGAATTTGGAACAGTCGAAGAGATTTTCTATGATCCAAGACACCCCTATACA  
TGGAGTTTGTCTGTCTAGCTTACCGCAGTTGGCAGATGAATCTGGTGAACCTTTACGCTATTCAGGAACGCTCCATCACTTTATCCACCAATTATC  
GGAGATGCCCTTGTCACTTCGCTCAGAATATGCTATGGTTTTAGACTTTGAAAAAGCACCTCCGGCGATTAAACGTATCTGAGACTCATTGGGCCAAA  
ACATGGCTTTTACACCCAGAGGCTCCAAAAGTTCAAAAACGAGAAGTCATTCAAGATTTGCATCAAAAAATCTTAAAGAAAATGTCACACAGGAG  
GAAGAAATGTC

## SEQ ID 72

MTKENNVILTAKDVVEFDVRDVLTAIRNVSLLEVEGEVLA FVGESGSGKSVLTKTFTGMLESNGRIANGSIVYRQBELDLKTNKEWAKIRGSK  
IATIFQDPMTSLSPKTIKIGSQITEVILIKHQKVSHAKAKEMALDYMKNVGI PNAKKRFEDYPFYSGGMQRQIVIAIALACRPDILICDEPTALDV  
TIQAIQIVELLKSLQREYHFTIIFITHDLGVVASIADKVA VMYAGRI VEFGTVEIFDYDRHPYTWSSLLSSLPQLADESGELYAIPGTPPSLYSPII  
GDAFALRSEYAMVLD FEKAPPAINVSETHWAKTWLLHPEAPKVQKPEVIQDLHQKILRKMSQQEEGNV

## SEQ ID 73

ATGAAGGAGATATCTTAATGTTGGTTTGTAAATCATGTGCGAAAAACATTTGGACGACAAAGAGTTTTTAAAGGACTGTCATTTTCATCTTAAAGA  
GGAGAAATAATTGTTATAATGGGTAAAAGTGGCAGTGGTAAAAGTAGCCTTGCCGCACTATTATAGGACTAGATAGTCTACTTGTGGTTCGATA  
TATTTTCAAGGAAAAATTTACACACCTAAAGATGGTAAGGCGCAGATATTCCTTGTTTTCAAGATGCGCTTAGTTCGGTCAATCCATATTTTGT  
ATTAGGAAATTTTGAATGAAGCTTTTATGGAATAAAAAACAACTTTTGAATTTAGTCAAAATATAGAAGCGGTGGGTTTAGATGGAACCTTATCTA  
AAATATAAGCTAGACAACCTTAGTGGTGGTCAGCTACAGAGAGTTGTATCGCTAGAGCTTTACTCTTAAAGCCTAAATATTATTTTGTGAA



TCCTTAAGTGGATTAGACCCAGTAACTCAAATAAAAAGTCTACGTTTATTACAAAAAATAAAACGCCGTTATGAATTAGTTTATAATGATTTCT  
CATGACCCTAAATTTGTCAAGCTATCTGTAACCGGGTCTTTCTGATAAAAAATGGTTATTAGTAGAAGATAATGAATCTTGAAGAGAGCGTGT  
TCTACTAAGTGTGGACCAATCTC

## SEQ ID 74

MKEIFLMLVCNHVKGTFGRQEVLDKCHFLKRGEIIGIMKSGSGKSSRLARLIIGLDSPTCGSIYFQGGKIYTPKDGKAQIILVFQDALSSVNPYFS  
IEEILNEAFYGGKTTFFELCQILEAVGLDGYLYKYKARQLSGGQLQVRVCIARALLPKKIIIFDESLSGLDPVTQIKMLRLQLKIKRRYBELSFIMIS  
HDPKICQAI CNRVFLIKNGYLVEDNEFLKRACSTNCLTNL

## SEQ ID 75

ATGAATGAAGCAATAATTCAATTAGATCATATTGATATTACCTTCCGTCAAAAAAAGCGGTTATCGAAGCTGTTAAAGATGTCACGGTTTCATATC  
AATCAAGGAGATATTTATGGCATTTGTTGGGTATTCAGGTGCCGGGAAATCAACTCTTGTGCGTGTGATTAACCTGCTACAGGCACCAACAAACGGG  
AAAATCACTGTTGATGGGGATGTGACTTTTGACCAGGGGAAAATTCAATTGTCAGCTGATGCCCTTCGCCAAAAACGACGTGATTTGGTATGATC  
TTCCAACATTTCAATTTGATGGCCCAAAAAACAGCCAAAGAAAAATGTAGCATTTGCGCTCCGTCAATTCGTGCTTAAGTAAGACTGAGAAAGAACAC  
AAAGTTATCGAATGCTAGAACTTGTAGGTTTATCAGAGCGAGCAGATAACTACCTGCCCAGTTATCGGGTGGGCAAAAAACAAAGGGTGGCTATT  
GCGCGTCTCTAGTCAAGATCCAAAAATTTTGATTTCAGATGAGGCCACATCAGCACTAGATCCAAAAACCCTAAACAAAATTTTGGCGCTCTTG  
CAAGAATTAACCGCAAACTTGGCCTTACCATTGTTATGATTACTCATGAAATGCAAAATTTGTAAGGATATTTGTAATCGTGTGTGTTATGCAA  
AATGGTGTGTTGATTGAAGAAGGTTCTGTCTTGTATCTTTTCAAAATCCAAAGAGCCCTTGACACAGGAATTTATCACAACAGCTACAGGGATT  
GATGAGGCTTTAGAAAAAATTAACCAACAAGACATTGTTAAACATTGTCCTTGCAATGCCCCTTCTAGCTCAGTTGAAATATGCAGGAACCTCTACG  
GATGAGCCTCTACTTAAATGACATTTACCGTCAGTTTGAAGTGACAGCTAATATTTTGTATGGCAATATTGAGATTTTAGATCATATTCAGTTGGT  
GACATGATTGTTGTCTTGAAGGGCAAGCTGAAAATATTCTTGGCGTGAAGAGCCTTGATGAAGCTGGTGTGATTGATTATTTAAAGAGA  
GGAGCC

## SEQ ID 76

MNEAIQLDHDITFRQKKRVIEAVKDVTVHINQGDYIVGYSGAGKSTLVRVINLQAPTNGKITVDGDVTFDQGGKIQLSADALRQKRRDIGMI  
FQHFNLMAQKTAKENAVFALRHSSLSKTEKEHKVIELLELVGLSERADNYPQLSGGQKQRVAIARALANDPKILISDEATSAIDPKTTKQILALL  
QELNRKLGTLIIVMITHMQIVKDCINRVAVMONGVLIBEGSVLDIFSNPKEALTQEFITTTATGIDEALEKINQQDIVKHLPLANALLAQLKYAGTST  
DEPLLSNIYRQFEVTANILYGNIEILDHPIVGDIMVVLGGQENILAEKALHEAGVDVSLKRGAA

## SEQ ID 77

GTGGAACCTAAATATCAACGTATATTAATTAAGTTATCTGGTGAAGCATTGGCGGGAGATAAGGGTGTGCGTATTGACATTCCTACCGTTCAATCT  
ATTGCAAAAGAAATTCGCCAAGTACACAATTCAAGTGTTCAAATAGCGCTTGTCTATTGGTGGAGGTAATCTTTGGCGTGGAGAACCTGCAGCAGAA  
GCAGGGATGGATCGTGTTCAGCTGATTATACAGGGATGTTAGGGACAGTAATGAATGCTCTTGTAAATGGCTGATAGCCTTCAACAAATATGGGGTA  
GATACATAGAGTTCAACAGCTATTCCAATGCAAACTGTTGCTGAGCCTTACGTACGTGGTGTGCTTTACGTCTATCTAGAGAAGAAATCGTATTGTT  
GTCCTTTGGAGCGGGTATTGGTTGCGCTTATTTTCACTGATGATCAACAGCAGCGCTTCGTGCTGCTGAGATTGAGGCAGAAAGCAATTTTAAATGGCT  
AAAAATGGAGTAGATGGTGTGTTATAATGCTGATCCAAAGAAAGATGCCAATGCTGTGCAAAATTTGATGAATTAACCTCACGTTGAAGTAATAAAACGA  
GGGTTAAAAATCATGGATGCAACCGCATCAACTATTTCATGGATAATGATATTGACCTTGTGTTTCAATATGAATGAGACTGGTAATATTAAG  
CGTGTGTTCTTGGAGAACAAATCGGAACAACTGTTTCAACAAAGCATCTGAA

## SEQ ID 78

MEPKYQRIILIKLSGEALAGDKGVGIDIPTVQSIKAEIAEVHNSGVQIALVIGGGNLWRGEPAAEAGMDRVQADYTGM LGTVMNALVMADSLQYQV  
DTRVQTAIPMQTVAEPYVRGRALRHLEKNRIVVFGAGIGSPYFSTDTTAAALRAAEIEAEAILMAKNGVDGVYNADPKKDANAVKFDELTHVEVIKR  
GLKIMDATASTISMDNDIDL VVFNMNETGNIKRVVLGEQIGTTVSNKASE

## SEQ ID 79

GTGGAACCTAAATATCAACGTATATTAATTAAGTTATCTGGTGAAGCATTAGCAGGTGAAAAGGAGTTGGCATTGACATTCCTCAACTGTTTCAGGCT  
ATTGCAAAAGAAATTCGCCAAGTTCATGTGTCGGGAGTACAGATCGCTCTTGTATTGGTGGAGGCAATCTCTGGCGTGGAGAGCCTGCAGCAGAC  
GCTGGAATGGACCGTGTTCAGGCTGATTACTGGCATGCTTGGAAACGGTGATGAATGCCCTAGTCATGGCTGATAGTCTTCAACATTATGGTGTG  
GATACCCGCTGTGCAACAGCTATTCTATGCAAAATGTAGCAGAACCTTATATTGCGGAGCGTGCCTTGCGCCATCTAGAAAAAATCGGATTGTT  
GTTTTGGAGCTGGTATTGGCTGCGCTTATTTTCAACAGACACCCCGCGGCACTGCGTCTGCTGAGATTGAAGCAGATGCTATTTTAAATGGCA  
AAAAATGGTGTGGATGGGGTCTATAATGCTGATCTAAAAAAGATGCTAATGCGGTTAAATTTGATGAATTAACACATGGTGAAGTGATCAACCGT  
GGTCTCAAAATCATGGATGCAACGGCATCGACCTTATCGATGGATAACGATATTGATTGGTGGTTTTCAATATGAATGAAGCTGGCAATATTCAA  
CGTGTGTTCTTGGAGAACATATTGGAACCTACTGTATCAATAAAGTTTGTGAC

## SEQ ID 80

VEPKYQRIILIKLSGEALAGEKGVGIDIPTVQIAIKAEIAEVHNSGVQIALVIGGGNLWRGEPAAAGMDRVQADYTGM LGTVMNALVMADSLQHYGV  
DTRVQTAIPMQNVAPYIRGRALRHLEKNRIVVFGAGIGSPYFSTDTTAAALRAAEIEADAILMAKNGVDGVYNADPKKDANAVKFDELTHGEVIKR  
GLKIMDATASTLSMDNDIDL VVFNMNENAGNIQRVVGEHIGTTVSNKVC

## SEQ ID 81

TTGATTGATGATTTATCAAAATGGTGAAATTAAGAAGACACGAGCTTCAGGTACAGTAATAGAAGCTAATTGGTTAAGGGGGTGGCGCTCCA

## SEQ ID 82

MIDDLNNGEIKRTRASGTVEANWLRGVGA

## SEQ ID 83

ATGACTAAGGAAATCGTTACAAAAGCTCAAGAGCGTTTTGAGCAATCACACCAAAAGTTTATCAAGAGAATTTGCAGGGATTGCTGCAGGACGTGCT  
AATGCTAGCTTGCTTGATCGTATTCAAGTTGAGTATTATGGAGCGCAACCCCCCTTAACCAATTAGCTTCTATTACTGTACCTGAAGCTCGTGT  
CTTTTAAATTTCAACATTTGATAAATCATCAATCAAGATATTGAGCGTGTATTAAACGAATCAGATTTAGGTATTAAATCTGCAAAATGATGGTTCA  
GTTATTGCTGCTGTTATTCCAGCTTTGACAGAAGAAACACGTCGTGATTTAGCTAAAGAAGTGAAAAAGTGGGAGAAAATGCTAAGATTGCTATC  
CGTAATATTGCGCGTGATGCTATGGATGAAGCTAAGAAGCAAGAAAGAAATAAAGAAATTAACAGAAGATGACTTGAAATCTCTTGAAAAAGATATT  
CAAAAGGCTACTGATGATGCTGTAAACATATTGATGAGATGACTGCTAATAAAGAAAAAGAAATTTGTTGGAAGTT

## SEQ ID 84

MTKEIVTKAQRFEQSHQSLREFAGIRAGRANASLLDRIQVEYYGAPTPNLQLASITVPEARVLLISPFDKSSIKDIERAINESDLGINPANDGS  
VIRLVIPALTEETRRDLAKEVKKVGENAKIAIRNIRRDAMDDEAKQEKKEITEEDDLKLEKDIQKATDDAVKHIDEMTANKEKELLE

## SEQ ID 85

ATGGCAAAATGCAATTATTGAACTGCAAAAGAACGTTTTGTCACAAATCCCATCAGTCTTTATCACGTGAATATGCCAGCATTGCTGCGGGTCTGCGC  
AACGCTAGTCTTTTAGACCGTATCCAAGTTGATTATACGGGGCACCGACACCATTAATCAATTGGCTTCAATCACTGTACAGAAGCGCGTGT  
TTATTGATCTGCGCTTTTGATAAATCTTCTATCAAGATATCGAGCGCGCTTTAACGCATCAGATTTAGGCATTACACCTGCTAACGATGGCTCT  
GTCATTGCTTTGGTTATTCCAGCTTTGACCGAAGAAACACGTAAGAATTAGCCAAAGAGTGAAAAAGTTGGTGAAAAATGCTAAAAATGCAATC  
CGTAATATCGCGCGTGATGCTATGGATGAAGCTAAGAAGCAAGAAAGAAATAAAGAAATTAACAGAAGATGACTTGAAATCTCTTGAAAAAGATATC  
CAAAAGCAACCGATGATGCTATCAAGAAATTGACCGCATGACGCGTGAAAAAGAAAAAGAAATTTGCTCTCAGTG

## SEQ ID 86

MANAIETAKERFAQSHQSLSREYASIRAGRANASLLDRIQVDYYGAPTPNLQLASITVPEARVLLISPFDKSSIKDIERALNASDLGITPANDGS  
VIRLVIPALTEETREKBLAKEVKKVGENAKIAIRNIRRDAMDDEAKQEKKEITEDELKTLEKDIQKATDDAIKEIDRMTAEKEKELLSV

SEQ ID 87

TTGGCAAGTAATAAAATGATTATGGAGGTAAC TGATAGAATCAAACCAGATGGATTGGTTTGTGCGTTACCTTTTAAAGGAGAAAAATGAAT  
ACATTATTAGCGACAGCATATAACAGGCTTAGTAACTGATGAAACAAAGATTTTTACTTTTATCCAAAAGATGGCTTTACCTTTGCATTATCAAAG  
TCAGAAGGAGAGCATCACATTGGTGAATGGTTAAAGGATTTCGCCTATACAGATATGCAACAAAAGCAGCTCTTACCAACTAAAGAAACATTTTGCG  
ACTCAGATCATTATGGTTGGGGGACAGTACTGAGGTACGTAAAGACTTTGGGAGTATTTCTTGATAGTGCTTCCAGATAAGCAAGTGGTTGTT  
TCTTTGGATGTTCTTCTCGAATTGAAAGAACTTTGGCCATAAAAAAGGTGATCGCCTCTACGTTTGTCTTAGTGTGTGATAAAAAAGATCGTCTTGG  
GCTCTCCCTCGAGATCCTGAAGTGTTCACAGCAATGGCAACCCCTGCATATAACAATATGCAAAATCAA AATTGGCCAGCAATCGTTTATCGCTTA  
AAATTGTCAGGAACTTTGGTTTATCTACCAAGAAAATAATATGCTCGGCTTTATTACCCCTAGTGAACCTTACAGTGAACCTCGTTTATGGGCAAGTG  
CTGGATGACAGAGTATTGGCTTCAGAGAAGTTGATAGAACCTTAAATTTATCATTAAGGCCCTCGTTCTTTTGAAATGTTAGAAAATGACGCACAA  
ATGATTTTAAACGTATTTAGAAAGTAAACGGAGGATCATGACTTTAAATGATAAATCTTCTCAGAGGAAATTAAGACTACTTTTGG AATTTCCAA  
GGTCAGTTTAAAAAGCACTTTGGAGGACTCATGAAAGCTAAAAAGATCAAAACAGATCAGCTAGGTACAGAATTATTA

SEQ ID 88

MASNMKIMEVTDRIKTRWIFVGYLFKRRKMNTLLATVITGLVTDENKDFYFIQKDGFTFALSKEGEHHIGEMVKGFAITDMQQKARLTTKETFA  
 TRDHYGWGTVTEVRKDLGVFLDTGLPDKQVVSLDVLPELKELWPKKGRDLYVCLDVKDKDRLWALPADPEVFORMATPAYNNMQNQNPAPIVYRL  
 KLSGTFVYLPENNMGLGIHPSERYSEPRLGQVLDARVIGFREVDRTLNLNLKPRSFEMLENDAMILTYLESNGGFMTLNDKSSPEEIKATFGISK  
 GQFKKALGGLMKAKKIKQDQLGTELL

SEQ ID 89

ATGAATGATTTACTAGCAACAGTCAATTACTGGGCTTATTAAGAAGAAAACGCTAATGACTATTTTATCCACAAAGAAGGGTTTACCTTTACCTTG  
TCTAAAGCAGAAAGGAGAACGCCAGATTTGGTGATATGTGTACAGGCCTTTGCTTATACAGACATAGAGCAAAGGCACGCTCTCAACACCAAAGAGATC  
CGTTTCAACACGGACAAGTTATGGCTGGGGGAAGTGACAGAGGTTTCGTCGTGACCTAGGCCTTTTTGTGCGATACAGGAATTTCAAATAAAGAAATTT  
GTGGTTCTTTTGGACGCTGTGCTGAGATGAAAGAACTATGGCTTAAAAAAGGGGATAAATTTACATTTCTGTTGGATTGGGATAAAAAAGACCGT  
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CGCTTAAAAATTAACAGGAAACGTTTGTTTACCTGAGCTTGAAGAACAAACATGTTGGGCTTTATTCACTCAAGTGAACGCTACGCAGAACCGCGCTTAGGT  
CAGGTTTATAGATGCCCGTGCTGATTTGGGTTTAGAGACGGTCGATCGTACCTTGAATTTATCGTTGAAACACCGTTCTTTTGAGATGTTGGAGAATGAC  
GCTCAGATGATTGTACTTATCTGGAAGCCAAATGTTGGTTTTCATGACTTTAAATGACAAATCAAGTCAGAAGAGATGAAATCAAGCTTTGGTGATT  
TCAAAGGCCAGTTTAAAAAAGCCTTGGGTGGATTGATGAAAGCTAAACGTTACAAACAAGACGCCACGGAATGTAATTAATAGGA

SEQ ID 90

MNDLLATVITGLIKEENANDYFIHKEGFTTFLSKAEGERQIGDMVTGFAYTDIEQKARLTTKKEIRSTRTSYGWGEVTEVRRDLGVFVDTGIPNKEI  
VVSLDVLPEMKELWPKKGDKLYIRLDVKKDRIWGLPAEPEVFQKMASPAYNNMQNHWAIVYRLKLTGTGFVYLPENNMLGFIHSSERYAEPRLG  
QVLDAVIGFREVDRTLNLSLKPRSFEMLENDQAQMIVTYLEANGGFMTLNDKSSPEIKASFGISKQFKKALGGLMKAKRIQDATGTTELIG

SEQ ID 91

TTGGCTTTTGTGTATATGATATATTAAAAAGAAATGGAGAACGATATGGAACGTGCGATTTTGTCTGGAGGTTGTTTTTGGTGTATGGTACAA  
CCATTGGAAGAAATTAGATGGTATGTTGAATCTGTTTTTAATCTGTGATACACTGGAGGACATGTTGAGAAATCACAATTATAAAGAAAGTTTGTAGTAAAGCT  
ACTGGACATACAGAAGCTGTGAAATATTTTTTAATCCTGCAAAAAATCTTTATGCAGATTTAGTGTAGTTATATGGGGCAAAACAGATCAACA  
GACGCTTTTGGTCAGTTTGAAGATCGTGGGGATAATATCGTCCTGTCACTTTTATGAGAATGAAGAGCAACGTCAGATTGCTCAAAAATCAAAA  
GATACAGCTACAAGCTTCGGGTGAGTTTATAGACAAATGTAACCGACATTGAGCGCTCTGATCACTTTTACCAGCAGAAGACTATCATCAAGCA  
TTCTATCGGACATACCCCTCGTTCAGCCTTAGCTAGTGCAGGAACATGCATTTCTAGAGGAAACTGGCAT

SEQ ID 92

MAFFVIMYLLKRMENDMERAI FAGGCFCWCMVQPFEELDGIESVLSGYTGGHVENPTYKEVCSKTTGHTAEVEIIFNPEKISYADLVELYWAQTDPT  
DAFGQFEDRGDNRYRPVIFYENEEQRQIAQKSKDKLQASGRFDRPIVTSIEPADTFYPAEDYHQAFYRTNPARYALSSARRHAFLEENWH

SEQ ID 93

ATGGAAGAGCCATTTTTCAGGAGGTGTGTTCTCGTGTATGGTGCAACCTTTTGAGGAGCAAGCAGGTATTTTGTCAAGTGGCTACACA  
GGTGGGCATCTCCCAAACTCTAGCTATGAAACAAGTTTGTGCCAAAGACAACAGGCATACAGAGCTGTGTAATATTTTGTGACCTTAAGCAAAATC  
GCTTATAAAGATTTGGTAGAGCTCTATTGGACGCAGACGGATCAAACAAGCGCTTTGGGGCAATTGGAATCGTGGGGACCACTACCGCTCTGTG  
ATTTACTACACAACGGAAAGCAAAAAGAAATTGCAGAGCAATCAAAGCAAACTTGCAAGCTTCAGGACGTTTTGACCAACCCATTGTCAACCACT  
ATTGAACCAGCAGAGCCATTTTATCTCGCAGAGGATTATCACCAGGATTTTATGAAAAGAAATCCAAGCGGTATGCACAAAGCAGTGCTATTCTG  
CATCAGTTTTTGAGGAGAAATTTGGTCA

SEO ID 94

MERAI FAGGC FWC MVQP FEE QAG IL SVRSGY TG GHPN PSYEQVCAKTTGHTAEV E I I FDPKQIAYKDLVELYWTQTDP TDAFGQFEDRGDNYRPV  
 IYYTTERQKEIAEQSKANLQASGRFDQPIVTTIEPAEPFYLAEDYHQGFYKKNPKRYAQSSAIRHQFLEENWS

SEQ ID 95

TTGAGAAAATCATTTTACAGTTGGTTGATGACACAAAGAAATCCAAAATCAAATGAACCAGTAGCAATCCTAGCAGATTACGCTTTTGATGAAACC  
ACTTTTCCAAAACATAGTTCGGATTTTGAAACAGTTAGTCGCTATTTAGAAGATGAGGCCAGTTTTTCCTTTAATTTAACAGATTTTGATGATATT  
TGGAAGATTATCTCAATCAT

SEO ID 96

MRKSFYSWLMTQRNPKSNEPVAILADYAFDETTFPKHSSDFETVSRYLEDEASFSFNLTFDDIWEDYLNH

SEQ ID 97

TTGGTCATGAGAAAATCATTTTACAGCTGGCTGATGACACAACGTAACCTAAATCAAATGAACCTGTGGCGATTTTAGCAGATTTGGTGTTTGAT  
GACACCACTTTTCCAAGCATACCAATGATTTTGAACCTATTAGTCGGTATCTAGAAGATCAAGCTAGTTTTTCCTTAAATTTAGGTCAATTTGAT  
GAAATCTGGGAAGATTATCTAGCACAT

SEO ID 98

LVMRKSFYSWLMTQRNPKSNEPVAILADLVFDDTTFPKHTNDFELISRYLEDQASFSFNLGOFDEIWEDYLAH

SEO ID 99

TTGTTTATGAGATATACAAATGGAAATTTTGAAGCCTTTGCAAGACCTCGAAAACTGAAGGTGTGGATAAAAAATCCGCTTATATTTGTTGGTTCT  
GGTTTAGCAGGATTAGCTGCCGCTGTCTTTTAAATACGTGACGGTCAAATGGATGGTCAACGTATTCATATTTTTGAAGAACTACCTCTTTCTGGA  
GGATCACTTGACGGTGTCAAACGACCTGATATCGGTTTTGTAAACGGTGGTGGTCTGAAATGGAAAACTCACTTCGAATGTATGTGGGATATGTAC  
CGTTCCTCCCTCTCTCGAAGTTCAGATGCTCTTATCTAGATGAATTTTATGGCTTGACAAGATGATCCCAATTCACTAAGTGTGCGCTC  
ATTCTATAAACAGGGGAATCGCTTAGAATCTGATGGTGATTTTACATCGGAACACATFCCAAGAGCTTAGTTAAGCTAGTCTAGGAGACTGAAGAG  
CTTTTAGGTGCTTAAGACGATTTGAAGAGTTTTTCAAAGAAATTTTTGAAGTAAATTTTGGAGTTATGGGGTACTACTGTTGCCTTTGAGAAA  
TGGCATTCAGCGATTGAAATGCGTCGATATGCTATGCGCTTTATCCATCATATTTGGTGGTCTGCCGCTATTTCACTTCAATTAATTTAATAAATAT  
AATCAATATGATTCTATGGTGAACCAATCATCAGTTATTTAGAGTCTCATAATGTAGATGTTCAATTTGATAGCAAGGTAACATAATCTCCGTA  
GACTTTAAGAACGGTCTGAGAAGCTTGCAAAAGCTATTATCTCAGATTTGGTGGTGAAGCAAAAAAATGATCTTACTCCAAATGATTTGTTTTT  
GTAACGAATGGTTCTATCACTGAAAGTACGAATGCGTAGTCATGATCTAGTACTAAACCTAATACCGGATTTGGGAGGTTCTTGGAAATCTTTGG  
GAAACCTAGCTGCTCAATCTGATGAATTTGGACATCTTAAAGTCTTCTCAAGAAGATTCCAAAGAGTCATGGTTGTTCTGCTACTGCAACA  
ATAAAAGATCCAGCTATTGAACCTTTATATAGAGCGTTTTAACACATCGTGACCTCCATGATGGTTAAAGTAAATACCGGAGGACTTGTACAGTTACA

GATTCTAATTGGATGATGAGTTTTGCTATCCATCGCCAACCGCATTTCAAAGAGCAAAAGGAAAATGAAAACAAATTGTTTGGATTATGGACTCTAT  
 TCAAATGTGGAGAGGTAATTTATATATAAAAAACCAATTGAGAGATGTACTGTGCGAGAAATCACAGAAGAGTGGTTATATCACTTAGTGTCTCTGAA  
 ATAGAAGATTCAATGATTTATCTGATAAACCAATATGTAAGTACAGTTCCTGGTTTATATGCTTACATTACTAGTTATTTTCATGCCCTCGAGTTAAAGGT  
 GACCGACCAGATGTTATCCCAACAGGATCTGTTAACTAGCCTTCATTGGTAAATTTTGCAGAACTCCATCCAGAGATACAGATTATTCACAGGAA  
 TATTTCTATTAGAAGCTGCTATGGAAGCTGTTTATACTTTCTTAAATATGGAACGTGGTGTTCAGAAGCTCTTAATTACAGCATTTGATATTCTGTGTC  
 TTGTTGCAACTCTTTATACATCTCAATGATAAGAAATCTGTTGAAGATATGGGATTTACCAATACCTGCGCTTAATGCGTAAAGTAGGCATGAAAAA  
 ATTAGAGGAATCTTTTAGAAGAATTATCTCGAGAAGCTCATCTTTTA

SEQ ID 100

MFMRVYTNNGNFEAFARPRKPEGVDDKKSAYIVGSGLAGLAAAVFLIRDGQMDQQRHIFEEPLPSGGSLDGVKRPDIGVTRGGRENMENHFECMWDMDY  
RSIPISLEVPDASYLYDFEYFLWDKDDPNSSNCRLIHKQGNRLSESDGQDFLTLGTHSKELVLMVETESLGAKEITIEVFSKKEFFESFNFTWYQGMFAFAEK  
WHSATEMRRYAYRPIHHIGSLPDTSLKFNKNCYQDMSVMVKIISYLSHNVDVQFDSKVINISVDFKNGQKLKAHILTUVGGEAKTIDLTLPNDVFV  
VTNGSITESTNYGSHDTVAKPNTDLGGSWNLWENLAAQSDSEFGHPKVIFYKDI PKESWFSV SATATIKDPAIEPYIERLTHRDLHDGKVNTGGIVTVT  
DSNWMMSPAIHRQPHFKEQKENETIVWLYGLYSNVEGNYIKKPIEBCTGREITEEWLYHLGVPEMKIHDLSDKQYVSTVPVYMPYITSYFMPRVKG  
DRPDVIPAQGSVNLFAIGNFAESPRLDTVFTTTEYSIRTAMEAVYTFNLNIERGVPEVNSAFDIRVLLQSLYFLNDKKSVEDMDLPIPALMRKVGMKK  
IRGTYLEELLREAHLL

SEQ ID 101

GTGATGATATCACCTTTGCCTTGACATTAATCAAGGAGGCTCTTGAATGTATTATACTAGTGGTAATTACGAAGCTTTTGCAACACCTCGAAAAACCCGAA  
GGGGTAGATACGAATAACAGCTTATATGCTTTGGTACTGGTTTAGCTGGTTTAGCAGCAGCTGTTTTCTTTATTTCGCGATGGGCATATATGGCTGGGGAA  
CGCATCATCTGTTTGGAGAAATGGCTTTAGCAGGCTGGTCTTTAGATGGTATTGAAAGCCCTCATCTTTGGTTTTGTAGACCCGTGGTGGCTGTGAG  
ATGGAATAATCATTTTGAGTGTATGTGGGACATGTATCGGTCCTTATCCCTCACTGGAATAATCCCGGTGCGCTCTATTATTGATGAATTAATTTATTTGGTTG  
GATAAGGATGATCTCAACTCATCCAACGTGTCGTTTGATTACAAGAGAGGAAATCGTGTGAAGATGATGACGGCCAGTATACGTCGCGTAAACAGTCA  
AAGAATAATTAATCCATTAATCATGAAGACAGAGAATCTCTAGGAGACAAACCATTTGAAGAGTCTCTCTCAGAAGATTTCTTTAAGAGATAAATTTT  
TGGGTGTAATTTGGGCAACCATGTTTGTCTTTGAAAAATGGCAATCTGCTGTGTAGAAATGCAGCGTATGCGATGAGGGTTATCCACCATATTGATGTT  
TTGCCAGATTTCACTCCCTCAAGTTCAACAAATATAACCAATATGACTCTATGGTCAAACCGATTATTGCTTACCTAGAATCACACGACGTGAC  
ATCCAATTTGACACAAAAGTCACTGATATTTCAAGTTGGAGCAAAACAGCTGTTAAAAAGGTAGCAAAAACCATCCATATGACGGTGTCTGGGGAGGCT  
AAGCGGATTTGAGCTAAACCTGTATGATTTGGTTTTTGTGGTACCAATGGTCTTATTACTGAAAGCAGCATACCGTAGTCATCAAGAGTGGCTAAG  
CCAACCAAGCGTTAGTGGTCTTTGGAATTTATGGGAAAACTAGCTGCTCAATCAGATGATTTTGGTGCATCCCTAAAGTGTTTTTACAGAGACTTG  
CCTGCTGAAAGCTGGTTTTGTCTGCTACAGCAACCATAAAAAACCCAGCTATCGAGCCTTATATAGAACGTTTGACCCACCGTGACTTGCACGAT  
GGCAAAGTGAACACTGGCGGCATCATCACTATTATACAGATTCTAAGTGAATGATGAGCTTTGCCATTACCCGTCAACCTGATTTAAGGAACAAAAA  
GAAATGAGAACACTGTCTGGATTTATCGGCTCTTATCCAAATAGTGAAGGCAATTACGTCACGAAGAAATTAAGGAGTGTACCAAGTCAAGAAATC  
ACAGAAGAAATGGTTGTACACCTTTGGGGTACCTGTTGATAAAATCAAGGACTTAGCGATCAGGACATATCAATACAGTTTCTGTTTACATGCTT  
TATATTACGAGTTACTTTATGCCACGCGTCAAAGGAGACCGTCCGAAGTTATCCAGATGGTTTCACTCAACTTGGCCTTTATTGGTAACTTTGCG  
GAATCTCCATCTCGAGATACGGTCTTATACGACTGAGTATTCTATTCTGATCGCCATGGAAGCAGTGATATAGCTTCTTGAATGTGGAACGAGGCATC  
CCAGAAGTCTTTAATTACGCTATGATATTCTGTAATTGCTCAAGCCTTTTATTACCTTAATGATAAAAAAGGCAATCAAGGATATGGATTTGCCA  
ATTCCTGACTGATTGTAGAAAAATCGGACATAAAAAAATCAAGGATACCTTTATCAAGAATTTGCTCAAGAATGCTAATCTTATG

SEQ ID 102

VMISCLFTIGQGLEMYEYTSGNYEAYATPRKPEGVDQKSAYIVGTGLAGLAAVFLIRDGHMAGERIHLFEELPLAGGSLDGIKPHLGFVTRGGRE  
 MENHFECMMDMYRISIPSLIEPGASYLDYFIBGLDKDDPNSSNCRLLHKGKGNVDDVDGQYITLGKQSKELILHMKTESLGDQITEEFFSDFFKSNF  
 WYVWATMFABEKWHSASAVEMRYAMRIFHHIDGLDPDSTLSKFNKYNQYDGMVKPIIAYLESHDVDIQDFTKVTDIQVEQTGAKKVACTIHMVTSGEA  
 KAIELTPDDLVFVTNGSITESTSYGSHHEVAKPTKALGGSWNLWENLAAQSDDFGHPKVIFYQDLPAESWVFSATATIKHPAIEPYIERLTHRDLHD  
 GKVNTGGIITITDSNWMMSFAIHRQPHFKEQKENETTVWIIYGLYSNSEGNYVHKKIEBCTGQETEEWLYHLGVPVDKIKDLASQDYINTVPVYMP  
 YITSYFMPRVKGDGRPKVPIDGSNVLAFIGNFAPESPSPDRTVFTTEYSIRTAMEAVYSFLNVERGIPEVFNSAYDIRRELLKAFYYLNDKKAIKDMDLP  
 IPALIEKHGKKIKDTFIEBLLKANLIM

SEQ ID 103

ATGAAATTTTGGTTATAATGTAGTCACTTACTGTACGAAAAGGAAGAATAATTTGCAAGAATACTCTATCGAAATTACTTTTACAACATCCAGATGAT  
ATGATGTGCACTCTTTGGCGAGCAATGAGCGCCATTTAAATTAATTCGAAGAATAATTTAGATGTTTATCATTCATGCTAGAGAATGAAACGTGTTTCAAGGTA  
TTAGGTGACTCTGAAGAAGCAGTGAAGAACCGCTCGGTTTAACCATTAAGCATTATTAGTGCTTTTGAACCCGGGATGACTGTGAATCATTTCCAGAT  
GTTGTAAACAGCCTTATCCATGGCAGAAAATGGTTCAATTGTATAAATTCGTTGCCCTTTATGAGAAGAATAATTAAGGATAGCTATGGTAAAGCCT  
ATCCGTGTTTAAGACTTTTAGGGCAAAAAATATACGTTGATAGCGTTAAAAATCATGATGTTGTTTTTGGTATTGGGCCCTGCTGGAACGGGAAAAACT  
TTTTTAGCAGTCACTCTAGCAGTAAACCGGCATAAAGCGGTGGTCAAGTTTAAACGAAATAATCTTAAACGAGACACGCGGTTGAAGCTGGTGAAGCCCTT  
GGTTTTGCTCGCTGAGATCTCAAAGAGAAAGTTGATCCTTATTAGAGACAGGTTTATGATGCCCTATATCAAAATTTAGGTAAAGAGCAAAAGT  
CGCTTAATGGAGCGTGAAATCATCGAAATTGCTCATTTGGCTTATCATGCGTGGTTCGTACTTTAGATGATGCAATTTGTCTATTAGATGAAGCGCAA  
AACACCACCTAATAATGCAAAATGAAATGTCTTAAACAGCTCTTGGCTTCAATTTCTAAATGATGTTGAAATGGCCAGATGTTAGCCAAATTTGACTTACCA  
AAGAATGTTAAATCTGGTTTGGATTGTGCTTTGAGAAATTCAGAAATATCAAAAAGATTGACTTTTATTCATTTATCAGCAAAGGATGTTGTAAGA  
CACCTGTGCTGGTGTGCAAAATAATAATGCTTATTCAGATTGAGAAAGTAGTCACAGCTTACAATCTGTTATAAGGAC

SEQ ID 104

MKFCYNVVYCTKRKNNLQEYSIEITLQHPDDMMSLFGSNERHKLKLEENLDVIIHARTERVQVLGDSEAEVETARLTIEALLVLVNRGMTVNTSD  
 VVTALSMAQNGSIDKFVALYEEI IKDSYGKPIRVKTLGQKIYVDSVKNHDDVVF GIGPAGTGKTF LAVTLAVTALKRQVKRIILTRPAVEAGESL  
 GFLPGDLKEKVDPYLRPVYDALYQILGKEQTSRLMEREIIEIAPLAYMRGRTLDDAFVILDEAQNTTIMQMKMFLTRLGFNSKMI VNGDVSQIDL P  
 KNVKSLIDAVEKLRNIKKIDFIHLSAKD VVRHPVVAEIIINAYSDESSSHKLQSDKD

SEQ ID 105

TTGCAAGAGTATTCTATTGACATTACCTTAACCCATCCTGATGATGTTTTAGCTCTTTTTGGTAGCAACGAGCGTCATTTGAAGCTAATAGAAGCT  
CATTTAGGAGTTATTTGTTACGCAAGAACCAGCGAGTCCAAGTGATTGGTGATGATGAAGAAGCTGTGGAATTGGCTCGATTGACCATCAAAGCC  
CTACTGGTTCTAGTGGGTCTGTGGCATGTTGGTCAACACATCAGATGTGGTGACAGCTTTATCTATGGCAGAAATCTCATCAGATTGACCAATTTTATG  
CGCGTTTATGAAGAAGAATCATTAAGATAACTATGGTAAGGCAATACAGTCAAAAACCTATTAGGTCAAAAACCTTATGTTGATAGTGTCAAACGT  
CATGATGTGGTTTTTGGTGTAGACAGCTCGAGGACAGGTAAACACTTTCTTAGTGTCTACCGCTTCAGCTCTGAGAAAGAGGACAGGTAAG  
CGTATTTATTTTGACGCGCTCTGCGGTAGAAGCTGGCGAAAGCCTAGGTTTTTTTACCAGGCGATTGAAAGAAAAGGTGGATCCTTACCTCAGACCT  
GTTTACGATGCCCCTTTATCACTTTTAGGCAAGGAACAAACCACACGCTGATGGAACGAGATGTGATTGAGATTGCTCCGTTAGCTTATATGCGA  
GGTCGTACTCTGGATGACGCTTTTGTATCTTAGATGAGGCTCAAAAACAGGACCATCATGCAAAATGAAGATGTTTTTGACCCGCTCTTGGTTTTAAT  
TCTAAAATGATTGTCAATGGAGATACGAGTCAGATTGACCTCCCTCGAAATGTTCAAGTCTGGTTTGGATTGATGCTACTCAGAAATTACAAGGCATT  
AAACAGATTGATTTTTGTCTATTCTCTGCTAAGGATTTGTGCGACATCTGTGTGGTGTATATTACAGGCTTATGAAACGTCTCAGAGGAG  
ATGAAGGACTTACTAAAACCTAAGGCTAGTGAAGCTGAAGCTGATTACCAGCCAGGCTTGACAAAAATACCTCTGATTCGGTTCAAGAGCAC

SEQ ID 106

LQEYSIDITLTHPDDVLALFGSNERHLKLEIAHLGVIVHARTERVQVIGDDEEAVELARLTIKALLVLVGRGMVNTSDVVTALSMAESHQIDQFM  
ALYEBEIIKDNYGKAIRVKTGLGOKTYVDSVKRHDVVFGVGPAGTGKTFLLAVTLAVTALKRGOVKRIILTRPAVRAGESLGLPLGDLKEKVPDYLRF



VYDALYHILGKEQTTRLMERDVIEIAPLAYMRGRTLDDAFVILDEAQNNTTIMQMKMFLTRLGFNSKMI VNGDTSQIDLPRNVKSLIDATQKLQGI  
KQIDFVYFSAKDVVRHPVVADI IKAYETSSSEEMKDLLKPKASDVEADYQPGLT KYPVIGQEH

SEQ ID 107

ATGGACCAATTTCAAAAACTCTGGCAAGATTTCTCTAAACTTCCAAATGTTGTTGCTATAGCACTCGGAGGCTCACGCTCTGGTGACAGTTTTCAG  
CAATCTTCCGATTATGATTTGTATGTTTATTGTGCAGCAACTCTCGATATCACTAGTCGTAAACGCTATCCTTAACAGCACTGTCATTACATTGAA  
CTTAACAATCATTACTGGGAGCTTGAAGATAATGGTACTTTTAAACGACGGAAGTATGATTTGATATTTCTATCGTAACATAGATAACTTTTTATCA  
GACTTAGAAGATGTGCTTGAACACCACAATTCTCGAATTGGATACACTACTTGTGTTTGGCATAACCTCATCAATTGCCAAATACCTTATGATCCT  
GAAAATCAATTACAATCACTCAAAGAGAGATTGCAAGTTTCTTATCCAGTCAGTTACAAAAACAAATTATCATTCAAATCGTAACTTATTAACCT  
GGCAAGCTTCCCTCTTTACGATAAAACAAATTATAAAAGCCCTTAAACGCCAAGACTTTGTTAGTACTCACCATAGAACTACTGCTTTCTTAGATTCC  
TACTTTGATATTATTTTTCACCTTAATAAGTTGACACATCCTGGCGAAAAAAGAATGATTTCTATGCTAAGAAGATGTACATTGCTTCTCTAAA  
CATTTCCGAAGAAATATCATTAACTATGTCTACCAACTCCAACGAACACACTGTTAAAGAAACATTAAACGATATAATAATGCATCTCGACGTC  
ATGCTTAAAGAAAAATTTTCAACACTTTATAGGT

SEQ ID 108

MDHFTKLWQDFSKLPNVVAIALGGSRSRGSDFQSSDYDLYVYCAATPDITSRKIRLNKHCHYIELNNHYWELEDNGTLNDGTDIDILYRNIDNFLS  
DLEDVVEHHNSRIGYTCFVHNLINQCILYDPENQLQSLKERFEVSYPSQLQKQII IQNRNLLTGKLP SYDKQII KALKRQDFVSTHRTTAFLDS  
YFDII FALNKLTHPGEKRMISYAKKNATLLPKHFEENIIKLCHHNSNEHTVKETLNDIIMHLDVMLKENFQHFI G

SEQ ID 109

ATGAAACAAGATTATATTTCTTACATTAGGTCAAAGTTGGACATGAGACTATCTTTTAAACATATCTGGTGGTATTTTGACAGATGGTAAAGGA  
CGTGTCTTACTCCAATTAAGAGCTGATAAGAATTCTTGGGGAATTATTGGTGGATGTATGGAGTTAGGTGAGTCATCAGTAGATACATTGAAAAGA  
GAATTTTTCGAAGAACTGGATTGAGAGTGGAAACCAATCAGACTGTTAAATGTTTATACTAACTTTCAAGACTCTTATCCCAATGGCGATAAAGCA  
CAAACCGTCGGTTTTATTTATGAAGTAAGCTGTCCAAAACCGATTATATAGAAGTTTTTATAATGAGGAAACATTGCAATTGGACTATTTTCT  
AAAGAAGACGTCAAAAATATTACGATCGTAAATGAACAAACCAATTAATTTTAGATGAATATTTTTCACAAACATTCCAATGGGGCGT

SEQ ID 110

MKQDYISYIRSKVGHETIFLTYSGGILTDGKGRVLLQLRADKNSWGIIGGCMELGESSVDTLKREFFEETGLRVEPIRLLNVYTNFQDSYPNGDKA  
QTVGFIYEVSCPVPVNI EGFHNEETLQLDYFSKEDVKNITIVNEQHQILDEYFSQTFQMGR

SEQ ID 111

TTGGCTATAATGAGAAAGAATACTAACATAGTAAAGCGAGATCATATGCCACAAGACTACATTTCTTATATCCGCTCCAAAGTTGGGCATGATAAG  
ATTATTTCTTAACTTTGCTGGTGGGATTTTGACCAATGATGACGGCAAGGTGCTGATGCAGCTGCGTGGTGATAAGAAAACCTGGACTATTTCTGGT  
GGCATTGGAAGTGGGTGAGAGCTCTTTAGAGACTTGCAAAACGTGAGTTCTTAGAGGAAACCGGAATTGAGGTTGAAGCTGTTCTGCTTACTGAAT  
GTTTACACTCATTTTGGGAAGTTTATCCCAACGGTGATGCTGTTTTCAGACTATTGCTTTTCTATCTATGAACAAACGGCTGTTTCTGATATGGCTATT  
GATAACTTTTCAATATGAGGAAACGCTCAAGTTACAATTTTCTCTCATGAGGAGATAGCAGAGTTAGAGAGTGTCTCAGCCAAACATCGCCTGATG  
TTAGAGGAATATTTTAGTGATAGCTTTGCTATGGGGCAT

SEQ ID 112

LAIMRKNINIVKRDHMPQDYISYIRSKVGHDKIILNFAGGILTNDDGKVLMLQLRGDKKTWTIPGGTMELGESSLETCKREFLEETGIEVEAVRLLN  
VYTHFEVYPNGDAVQTI VFIYELTAVSDMAIDNFHNEETLKLQFFSHEEIAELESVSAKHRLMLEYFSDSFAMGH

SEQ ID 113

GTGACTGTTTTTTTAGAAAGCATAAGAAGTACAGAAAAAGAAAAATTATGGAATATTTGATGGTGGGGATATGCTTTACTTACGGTATTGGAATGAT  
ATACTTAAAGAAATCCAGTTT

SEQ ID 114

MTVFLESIRSTEKENYGFIDGGDMLYLRVWNDILKEIQF

SEQ ID 115

ATGAAGATAACATTACACGGCGTTGCTGAAACGTTATTAATCACCTTATATATTAGGGCTAAAGATGCGATGGCTAAACATCCGATACCTTAATGAT  
CAAAAATCCTTAGCAATTTGTTGAACAGATAGAATATGATTTTGATAAATTCGATAAATTCAGAAAGCTTCTTTTATGCAACATTAGCTAGAATTCGC  
GTTATGGATAGAGAAATCAAAAAATTTATTAGAGAAAATCCAAATAGTCAAACTCCTTCAATTTGGTTGTGGAGCTTGATACAAGGTTTGAAAGAGTC  
GATAATGGACAAATTAGGTGGTATAACCTTGATTGCGCAGAGTTATGGAGATAAGAAAAATATTTTGAAGAGCATGAAAGAGTTACTAATATA  
GCAAAATCAGCCCTAGATGAACTTGGACACGGGAGGTAAATCCCCAAAATGCCCTTTTCTAATCGTGTGAGAAGGTGTTTAAATGTTTCTAAAA  
GAAGATGACGTAGAGACTTTTCTTATATCCTGACAAATTCATTTAGCCAAATTTATGGCACAATTTGATTTGTGTATAAGGAAATGATTATAAAA  
GGAAAGCAACATGATACAGTAAAGTATATGGATACAGAATTTTCAAGTTGGTATCACAGATGGTCTAGAGATTGTGGATTAGACCCATAATTAAG  
CAATAAATCTGATTAATCTTTACAGATGAGATGAGCAAAATTTGAGTTAGGCACACTTCGCTCTTTACTTCCAACAATTCGTAAATTTAATAATTGT  
TTAGGTGTGTACGAATATAAAGCATCTGAGAAAAAG

SEQ ID 116

MKITLHVAETLLITLYIRAKDAMAKHPILNDQKSLAIVEQIEYDFDKFDNSEASFYATLARIRVMDREIKKFIRENPNSQILSIGGLDTRFERV  
DNGQIRWYNLDLPEVMEIRKLFEEHHERVTNIAKSALDETWREVNPNQAPFLIVSEGVLMLFKEDDVETFLHILTNNSFSQFMAQFDLCHKEMINK  
GKQHDVVKYMDTEFQGITDGHIEIVDLDPKLLQINLINFTEDEMSKFLGLTSLRLLPTIRKFNCLGVYVEYKASEK

SEQ ID 117

ATGTACGTTGAAATGATTTGATGAAACTGGACAAAGTTTTCAGAAGATATCAAAAAGCAAACCTCTTGATTGTTAGAGTTTGCAGCACAAAAACAGGT  
AAAGAGAATAAAGAAATGGCTGTAACGTTTGTCTAATGAACGTAGCCATGAATTTAGAGTATCGAGATACCGATCGTCCGACTGATGTT  
ATCAGTTTAGAATATAAGCCTGAGGTTGATATTTCTTTTGATGAAGAAGATCTGGCTGAAAATCCTGAACCTTGCTGAGATGCTAGAAGATTTTATGAT  
TCTTATATTGGTGAACCTTTTATTTCTATTGATAAAGCTAAAGAACAGCAGAAAGATACGGTCACTCTTATGAACGTGAAATGGGTTTTTTAGCT  
GTACATGGTTTTTTGATATTAACGGTTATGATCATTATACACCCGAAGAAGAAAAAGAGATGTTTACGCTTACAGGAAGAAATTTTAACTGCTTAT  
GGACTTAAACGACAA

SEQ ID 118

MYVEMIDETGQVSEDIKQTLDDLLEFAAQKTGKENKEMAVTFTVNERSHELNLEYRDTDRPTDVISLEYKPEVDISFDEEDLAENPELAEMLEDFD  
SYIGELFISIDKAKEQAEYGHYSYEREMGFLAVHGFHLHNGYDHYTPPEEEKEMFSLQBEILTAYGLKRQ

SEQ ID 119

GTGCCCAACATACCAATGAGGTGGGCGAGCCCTTCCCTAACAAATTAACCTTATGTATATCGAGATGATTGACGAAACGGGACAAAGTTTCGCAAGAG  
ATTATGAGCAACAACTTGATTTGCTCAATTTGCTGCTCAAAAGACGGGCAAGAAAGAAATGTCTGTGACCTTTTGTGACCAATGAAAGA  
AGTCATGAACCAACTTAGAATACCGAGATACCTGATCGTCCACAGATGTGATTTCTCTAGAATATAAGCCAGAAACGCTATTTTATTATTAGTCAA  
GAGGATTGGCTGCTGATCCTAGTTTGGCAGAGATGATGGCAGAGTTTGATGCTTATATTGGCGAATTTGTTTATTCTATTGACAAGGCGCGTGAG  
CAGTCCCAAGAAATATGGGCACTCTTTTGGAGCGTGAATGGGATTTTGGCTGTTTATGGAATCTTATCATATATAATGGGTATGATCACTACACCTT  
GAAGAAGAAAGAGATGTTTACCTTACAGGAAGAGATTTTGACTGCTTATGGCCTTACACGACAA

SEQ ID 120

VPNIPNEVGSPSLTINLMIEMIDETGQVSQEI MEQTLDLLNFQAQKTGKEEKEMSVTFTVNERSHELNLEYRDTDRPTDVISLEYKPETPILFSQ  
EDLAADPSLAEMMAEFDAYIGELFISIDKAREQSQYEGHSFEREMGFLAVHGFHLHNGYDHYTLEEEKEMFTLQBEILTAYGLTRQ

SEQ ID 121

ATGTCAGAAAAATCCTGATGCCTATATTATTCGTAGTCAAATTTGCATAATCAGGATTTCCTCAAGTAACCTCAAAGCTATTGCTAGGGCGGGTGCA  
GGAAACAAATAATATTTCCTATTGAAGAGGCAAGTGCAACAGGGAATAGTCGTGTTTAAATACCCAGGTGCAAAATGCTAAATGCTGTAAGAAGAACGGGTC  
ATTGCTGCCCTTACTTTCAGCTCGTGATTATTAGGAGCTAACCGATGGGTTTAATCTCTAATCGGAACAGATATTCCCAACAAATTTGAAGCA  
GAAAGAAAGCTTTTGTGCGTAATGAAATTGCAGGAAAAAATTTGGGAGTTATCGCCCTTTGGTGCCATTGGAGCTAGAAATTGCGAATTGATGCTAGA  
CGCTTAGGAATGACAGTTCTTGGTTATGATCCCTATGTTTCAATTGAAACAGCTTGGAAATATTTCAAGCCATGTTCAAAGGGTTAAAGAGATTAAG  
GATAATTTTGAAGACTTGTGACTATACCAATTCATGTTCCCTTAAACAAATGAAACTAAGCATACTTTTGATGCGAAAGCTTTTTCATCATGAAA  
AAGGAACATACGATTATCAACTTTGCTCGTGAGAAATTAGTCAATAACCAAGAGCTATTTGAAGCGCATAGAAACTGGTGTGTCAGCGCTATATT  
ACTGATTTTGGAGACAAAGAATTATTAACCCAAAAAG

SEQ ID 122

MSNPDIYIIRSQLHNQDFPSPNLKAIARAGAGTNNIPIEEASAQGIIVFNTPGANANAVKEAVIAALLLSARDYLGANRWVNTLTGTDIPKQIEA  
GKKAFAGNEIAGKGLGVIGLGAIGARIANDARRLGMTVLGYDPVYSIETAWNISSHVQRVKEIKDIFETCDYITIHVPLTNETKHTFDAKAFSIMK  
KGTTIINFARAEVLNNQELFEAIETGVVKRYITDFGDKELLNQK

SEQ ID 123

TTGATGAAATTAAAAATTATATAATGTTAGAGGCGAAGAAGCAGTCTTAGCAAAAAAATGGGCTGATGCAATGGGATTGAGATTTCTTGACGGAG  
TCTCCCTTAACTCCTGAAACGGTAAAGAAGCTGAAGGCTTTGACGGGATTGCCAATGCCCAAATTGGTCTTTAGATGATGCGATTTATCCTCTC  
TTAAGGAAATGGGGATTAAACAAATCGCTCAGCACAGTGTCTAGTGTCTGATATGTATAACCTTGATTTGGCCACCGGAAATGACATTATTATCACA  
AATGTTCTCTAGCTATTCTCCAGAAATCCATTGCAAGTTTACGGTTACTATTGTCCTTTAACTTTAACTTCGTATGGAGTTGACTTCGTGAAGAAATGTT  
AAAAACAAAATTTCACTTTGGGGAACCTCCATCCCGCGGCCGFTGTTTTAGGTGATATGACAGTTGCGAATTCGGAATTCGGAATTTGGCTTAGCT  
ACTGCTAAAAATCTTTAAGGTTTTGGCTGCAAGGTCGTTGGATATGATATTTACCAAAGCGATGCTGCCAAAGCTGTCTTGGACTATAAGGAATCT  
GTAGAAGAAGCGATTAAAGATGCTGATCTTGTTTCCTTACACATGCCACCAACTGCAGAGAACACACACCTTTTCAATTCTGATTTATTTAAATCA  
TTCAAAAAAGGGGCTATTTTGATGAATATGGCGCGTGGTGCCGTCAATTGAGACGCAAGATTTACTGGATGCTTTGGATGTCAGGCTTACTGAGCGGA  
CTCGGTATTGACACTTACGAATTTGAAGGACCTTATATACCTAAGAATTTTGAAGGTCAAGAAATTACAGATTCACTATTTAAAGCTTTGATTAAC  
GATCTTAAGTTTATTATACACCTCAGTCAGCTTATTATCTGATGAAGCCGTTAAAAACCTAGTTGAAGGTGCCCTTAAATGCTACAGTAGAGATT  
ATCAAACTGGGACAAACGACAACTCGTGTTAAC

SEQ ID 124

LMKLLKLYNVRGEEAVLAKKWADDNGIEISLTSPLTPETVKEAGFDGIANAQIGPLDDAIYPLLKEMGIKQIAQHSASVDMYNLDLATENDIIIT  
NVPSPSYSPESIAEFTVTIVLNLIRHVELIRENVKKQNFWTGLPIRGRVLGDMTVAIIGTGRIGLATAKIPKGFCKVGVGYDIYQSDAAKAVLDYKES  
VEEAIKDADLVSLHMPPTAENTHLFNSDLFKSFKKGAILMNMARGAVIETQDLLDALDAGLLSGAGIDTYEFEGPYIPKNFEGQEITDSLKFALIN  
HPKVIYTPHAAYYTDEAVKNLVEGALNATVEIKTGTTTTRVN

SEQ ID 125

ATGCTTTTTCATGAGAGATAAATTTAGATTCTTTTGATTGAGCTGTTATTGATGAGATGGCTAAACATTATCAATGGTCTGATCAAGACAAAACCTTTC  
TATGAAGAAGAATTACATGAGACTCTAAAGACAATGACTTGGCAGCTTTTGAANNNNNTTAAT

SEQ ID 126

MLFMRDNLD SLIQVIDEMAKHYQWSDQDKTFYEBELHETLKDNDLAALXXXN

SEQ ID 127

ATGGAATTTTCAAGAGAAACAAGACGCTTAGCTCTCCAAAAATGCAAGAAAGAGATTAGACCTACTGATTATTGGGGGAGGTATTACGGGTGCT  
GGTGTGGCACTTACAGCGCGCAGCTAGTGGCCTAGATACGGGTCTGATTAGATGCAAGATTTTGTCTCAAGGAACCTCTAGCCGCTCAACCAAATTG  
TCTCACCGGGGGCTTCGTACTCTTGAACAATTTGATGTGGAGGTGGTTTTCAGATACGGTGTCAAGACGGGGTGTGGTGCAACAAATGCAACCCCA  
ATTCAAAAACAGACCCPATGTTATTACTGTTTATTGACGAACTGGCAGTACCTTTAGCATGTTCCGTTTGAAGTCGCTATGGAATTTGATGATG  
CTTTTAGCAGGCGTGTCCAATACGCCAGCGGCCAACAGGTGTTAACCAAGAAGAAAGTCTTAAAAACGAGAACCAGACTTAAAAACAAGAAGGCTTG  
CTTGCTGGTGGGGTTTACCTTGAATTCGCAATAATACGCAAGGCTTGTATTGAAATATCAACACGAGCTAATCGTGATGGGGCTCTTATTGCT  
AGTCATGTGAAAGCAGAAAGATTCTTGCTAGATGACAAATGGTAAGATTATGGTGTGAAGCGCGTGATCTGCTGCAGATCAAGAAATCATTTATC  
AAGGCTAAATTAGTCATCAACACCACAGGTGTCATGGAGTAGAGATTGCTGCAATCTCTCATAGGGAACACCGGATTATCAAAATGCCCTACA  
AAAGGGGTGCATCTGGTAGTGGACCGTCAAAAAATTACAGTGTCTCAACCTGTCTATGTTGACACAGGGTTAAATGATGGTCGTATGGTCTTTGTC  
TTGGTAGTGGAGGAAAAAATTTATTTGGAAACAACGCAACCGGACTACATGGAAGACTTTGGAGACCCCAAGTTACTCAAGAAGATGTGGATTAT  
TTGTTAGCGCTTGCTCAATAACCGCTTTCCAATTGCCAAGCTGACCATTTGATGATATTGAAAGCAGTTGGGCTGGTCTTCGCCCTTTGTTATCAGGT  
AATAGTGCCTCTGACTACAAATGTTGGCAACAGCGGCTAAAGTCAGTATGATGTTTGTACACTTTGGTTGATACTGTCAAAGCCATATTAACCA  
GAAGATAGCCGAGAAGCTGTTGAAAAAGCTATTAAGCAGGTTGAAACCAAGCACTCTGAAAAAGAAATGGATCCGCTGTCAGTGTCAACGAGGTTCA  
AGTTTGTAGCGTGATGAGATGACTCTTCTACTTGGCAGGTGGTAAAGATTACCGACTATCGCAAAATGGCTGAAGGAGCATTGACAGGAATTTAT  
CAAACTCTCAAGAAAGAGTTTGGCAAACTTTCAAGCTTATCAATTTCAAAAACCTATCTCTGTTTCAAGGAGTGAAATCAATCCAGCAATGTAGAT  
TCGGAATAAGAACCTATGCTCAATTAGGAACCTTTAGTGGTCTTTTCAGTGGATGATGCTAGGTATTTGGCAACCTTTATGGTCTTAATGCGCCA  
AAAGTCTTTGCTTAACTCGTCAATTACAGCAGCTGAAGGGTTAAGTTTAGTGTGAAACCTTGTCTTACATTATGCGATGATTATGAAATGGCT  
CTTAAACCGACAGATATTTCTTGAGAAAGAACAAATCACTCTTATTTATGCGAGATAGCTTAGATGCTTTGATTGACCCAGTGATTATGAAATG  
GCTAAACATTTGAATGGTCTGATCAGGAAAGAGTGGCACAAGAAGACGATCTTCGTGCGTGATTGCAGACAAATGATTGTAGTGCCTTAAAGGC  
CATCAGGAGGGT

SEO ID 128

MEFSRETRRLALQKMQRDLDLLIIIGGGITGAGVALQAAASGLDTGLIEMQDFAQGTSSRSKLVHGGRLRYLKQFDEVVSDTVSERAVVQQIAPH  
IPKPDMLLEPVYDEPGSTFSMFLKLVAMDLLDLAGVSNTPAANKVLTKEEVLKREPDLKQEGLLGGGVYLDRENNDRALVIEIKRANRDGALIA  
SHVKAEFLDLNDNGKIIIGVKARLLSDQEIIEIKAKLVINTTPGWSDEIRQFESHKQPIHQMRPTKGVLHVDRQKLPVSPVYVDVTLGNDGRMVVF  
LPREKTYFGTPTDVTYDGLDEHPQVTEQEDVYLLGVNNRFPNANVTIDDISSWAGRLPDLTSGNSASVNDNGNSGKGVSDDSFDHLVDVTYKAIINH  
EDSRAEVEKAIKQVETSTSEKELDPSAVSRGSSFERDENGLPTLAGGKITDYRKMAEGALTGIIQILKEBFKGSKFLINSKTYPVSGGEINPANVD  
SEIEAYAQGLTSGLSMDARYLANLYGSNAPKVPFALTRQLTAAEGLSLAETLSLHYAMDYEMALKPTDYFLRRTNHLLFMRDSDLADIDPVINEM  
AKHFEWSDQERVAQEDDLRRVIDANDNLSALKGHOG

SEO ID 129

ATGGTTCGTACAACCTCGTCCAACAACCTGATAAGGTTAAAGGCGCTATTTTAAATATGATTGGTCTCTTTTTTTGAAGGTGGTCGTGTTTTAGACCTT  
TTTTCTGGCAGTGGTAGCTAGCTTAGCTATTGAGGCCATCTCAAGGGGAATGGACAACAGCTGCTTAGTTGAAAAAGATAGCGGTCGCGCAGGTGCTTTATT  
CAGAAAATTTATTCGATAGCTAAGAGTCGCGGACCAATTTCAATTAATTAATAATGGAAGCAACCGTCTCTTAGACAATTAACGGGGACATTTGAT  
TTGGTCTTTGTGGACCCGCCATATGCTAAGGAAGAAATTTGAAAGCAAATCCAATCATGGATAGCAAGGGTTTATTAGGCGATGATATCATGATT  
GCTTGTGAACCGGACAAATCAGTTGATTACCTGAAGAAATTGCTTCTTTTGGGATATGGAACAGAAAATTTATGGCATTCTAAAGTAACGGGT  
TACCTTCGT

SEO ID 130

MVRTTRPTTDVKVGKAI FNMIGPFFEGGRVLDL FSGSGSLAIEAISRGMDQAVLVEKDRRAQVVIQENIAMTKSPEQFQLLKMEANRALEQLTGQFD  
 LVLLDPPYAKEEIVKQIQIMDSKGLLGDDIMTACETDKSVDLPEEIASFGIWKQKIQIGISKVTVVVR

SEO ID 131

ATGAGAGTTGTATCAGGTGAATTTGGTGGGCGTCTTTAAAGACGCTCGATGGAAAGATAACACGCCCTACTTCAGACAAAGTTAGAGGTGCGATT  
TTTAAATATGATAGACCTTACTTTAATGGTGGTCTGTTTGTAGATTGTTTGCAGGTTTCCAGGTGGATTAGCCATTGAGGCTGTTTCTCGTGGGATG  
TCTGCTGCAGTTTTGGTTGAGAAGAATCGTAAAGCGCAAGCTATTATTCAAGACAATATTATAATGACTAAAGCTGAGAATCGGTTTACCTTGTTA  
AAAATGGAAGCTGAGCGAGCTATTGATTGCTTGACTGGTCGATTGACTTAGCTTAGCTCTTTTAGACCTCCTTATGCCAAAGAAACAATTGTGGCAACT  
ATTGAAGCTTTAGCAGCTAAAAAATTATTGAGTGAACAGGTTATGGTTGTCTGTGAGACAGATAAAACAGTCTTGTGCGAAAAGAGATTGCAACG  
TTAGGTATTGGAAGAAAAAATTATGGAATTAGTAAGGTAACAGTTTATGTTAACT

## SEQ ID 132

MRVVSGEFGGRPLKTLTGKITRPTSDKVRGAIFNMIGPYFNGGRVLDLFAGSGGLAIEAVSRGMSAAVLVEKNRKAQAI IQDNIIMTKAENRFTLL  
KMEABRAIDCLTGRFDLVFLDPYAKETIVATIEBALAANKLLSEQVMVVCETDRTVLLPKETATLGIWKEKIYGISKVTYVVN

## SEQ ID 133

ATGACAAAGAAAGCTTTATTTACAGGTTTCACTTGTATCTGTTACTAATGGACATTTAGATATTATTGAGCGCGCCAGCTATCTATTTGATCATGTT  
TACATTGGGTTATTTTATAACCTTGAGAAGCAAGGTTACTTTTCGATTGAGTGCCGTAAGGGAAGTGGGAGCAAAATATTTTGTTCGAGGCTGCGTAATAGCCAGGAT  
GTTTCAGTTTATAGTGGCGCAAGATAGACTGGCTGTGACTTAGCTAGCTAAGAAATACGAGTAACCTCACTTGATTAGAGGCTTGCGAAATGCAACT  
TTTGATTATGAAGCAATTGAGGTTTATTAATAAACAGTTGGCAGATGATATTGAGACAGTTTATTTATCAACGTCGCCATCTTTGAGTCCGATA  
TCATCTAGTCGCATCCGTGAATTGATACATTTTAAAGCTTCTGTGAAGCTTTTGTTCCAAAGAGTGTGTTAGAGAAGTGGAGAAAATGAGTGAA  
GAA

## SEQ ID 134

MTKKALFTGSFDPVTNGHLDIERASYLFDHVYIGLFYNLEKQGYFSIECRKKMLEAIRQFKNVSVLVAQDRDLAVDLAREVGAKYFVRGLRNSQD  
FDYEANLEFFNKQLADDIETVYLSSTPSLSPISSSRIRELIHFASVKPFVPSVREVEKMSSE

## SEQ ID 135

ATGTTAACTAAATAGGACTTTATACAGGGTCATTTGATCCTGTTACAAACGGTCATCTCGATATTGTTAAACGGGCAAGTGGCCTATTTGATCAA  
ATATATGTTGGGATTTTGTATAATCCTACCAAAAAAGCTATTTTAACTAGAAAGTTCGTAAAGCAATGCTTACTCAAGCTCTGGCTGATTTTACA  
AATGTAAATGTAGTAACCTTCGCACGAACGTTTAGCTATTGATGTAGCTAAGAAATACGAGTAACCTCACTTGATTAGAGGCTTGCGAAATGCAACT  
GACTTTGAGTATGAAGAAAATTTGAATATTTTAAATCACCTTTTAGCTCCAAATATTGAAACCGTCTATTGATATCAAGAAATAAATGGCAGGCC  
CTTAGCTCTAGTCGTGTGAGAGAGCTAATTCATTTTCAGTCTTCTTAGAAGGTTTGGTTCCTCAGTCGGTTATGTCTCAAGTGGAGAAAATGAAT  
GAAAAGACT

## SEQ ID 136

MLTKIGLYTGSFDPVTNGHLDIVKRASGLFDQIYVGIFDNPTKKSYPFKLEVRKAMLTQALADFTNVIVVTSHERLAIDVAKELRVTHLIRGLRNAT  
DFEYENLEFYFNHLLAPNIETVYLISRKNQWALSRRVRELIHFQSSLEGLVPSVIAQVEKMNKET

## SEQ ID 137

TTGGATCTCTATTCTTCACTCATTTTCTCCACTTCTCTAAACACTCTTTTGGAAACAAAAGGCTTCACAGAAGCCTTAAATGTATCAATTCACGG  
ATCGACTAGATGATATCGGACTCAAAGATGGCGACGTTGATAAA

## SEQ ID 138

MDLYSSLIFSTSLTTLFGTKGFTBALKCINSRMLDDIGLKDGDVDK

## SEQ ID 139

GTGAAGAATAGAGATCCAAAAGAAACATAAAAGTTTACTAGGTCGTCTTAAATGGTGGATTATAGGTTTGTCTTTTTTATTGTTAGTATTAGCA  
AGCCTTGTAGTGAGACTACCTTATTTATTTGGAAATGCCAGGTGGAGCTTATGATATCCGTTTCGGTATTGAAAGTGAATAAAAGGCTGATAAAGCT  
AAGGTTTCGTACAATTTTGTAGCGGTATCTGTGAGTCAAGCAACGCCAGCTCAGTTCTTTATGCTTGGTTAACTCCTTTTACAGAATTATCTAGT  
AAAGAGGAGACAACAGGTGGCTTTAGTAATGACGATTATCTCAGAAATTAATCAATTCTACATGGAGACTTCTCAAAATGAGTCCATCTATCAAGCT  
TTAAAGTTAGCTAATAAGCAAGTATCTCTTACTTATAAAGGAGTTTATGTGCTTAACTTAACTTAAATTCGACATTTAAAGATAGATTACATTTA  
GCTGATACAGTCAAGGAGTTAATGGCAAAAATTTCAAAAATCTTCTCAACTTACAAATATGTTGCAGCTCTTATCAGTGTAGGATAGGATAAAG  
GTACAATACACAAGTCAAGGTAAAAGAAAGAATCAGTTGGTAAAGTTATTAACATATCAACCGGTAAAATGGTATTGGTATCGGTTTGACAGAC  
CATACAGAAGTATTATCTGATGTTCTGTGGACTTTAATCTGAGGTTGTTGGAGGACCAAGTGACAGGTTTAAATGTTTACTTTAGCGATTACGAC  
CAATTGGTTAAAGAAGATTACGTAAAGGACGTAAAGATTGCAGGTACTGGTACTATTGAGCAAAATGGGCATGTTGGCGATATTGGTGGAGCAGGT  
TTGAAAGTTGTTTTCAGCGCTTAAAGAAAGGAATGGATATTTTCTTTGCTTCTAATAATCCGATCGATAAAATGCTAAAAAGGCCAAAACAAAGGTT  
CAGACGAATTATCAAGAGGCAAAAGCAGCAGCTAAGCGATTAGGTACGAAGATGAAAATTGTACCAGTTCAAATGTTTACGACAAGCTATTGATTAT  
TTGAAAAAACAAAA

## SEQ ID 140

MKNRDPKRRKHSLLGLLKWIIIGFAFLLLVLASLVRLPYYLEMPGGAYDIRSVLKVNKKADKAKGSYNFVAVSVSQATPAQVLYAWLTPFTELSS  
KEETGGFSNDDYLRINQFYMETSQNESIYQALKLANKQVSLTYKGVYVNLAKNSTFKDRHLHADTVTGVNGKSFKNSSQLIKYVAALHLGDKVK  
VQYTSQGGKKESVGVKVIKLSNGKNGIGIGLTDHTEVLSVPVDFNTEGVGGPSAGLMFTLAIYDQLVKEDLRKGRKIAGTGTIEQNGHVGDIGGAG  
LKVVSAAKKGMDIFFVPNNPIDKNKKGKTKVQNTYQEAAKAARLGTGMKIVPVQNVQQAIDYLLKTK

## SEQ ID 141

ATGAAAAGACTTAAAAAATCAAATGGTGGTTAGTGGGCTGCTAGCTTTAATCTCTTTGTTGCTAGCGTTATTTTCCGCTACCTTATATATTT  
GAAATGCCTGGAGGCGCTTACGATATTCGGACTGTCTTACAAGTCAATGGCAAAGAAGACAAACGAAAAGGAGCTTACCAGTTTGTGTCAGTGGGC  
ATTAGTCGTGCCAGCCTCGCTCAGCTATTATATGCTTGGCTGACACCGTTTACTGAAATTAGTACAGCAGAAGATAACAACAGGCGGATACAGCGAT  
GCTGATTTCTTCAATTAATCAATTTTACATGGAAACATCAAAAATGCAGCTATTATCAAGCTTTATCTCTTAGCTGGAAAACCAAGTTACATTA  
GATTATAAAGGCGTATATGTTTACGACGTAAACAACGAATCTACTTTTAAAGGAACGCTACACTTAGCAGATAGTAAACAGGTTGTAATGGGTAAA  
CAGTTTACTAGTTTACGACAGAACTTATTGACTATGTTTCTCACCTAAAACTAGGGGATGAAGTTACGGTTTCACTTTACGAGTGATAAAGCCTAAA  
AAAGGAGTTGGCCGTATTATCAAACTGAAAAATGGGAAAAATGGGATTGGCATTGCCTTGACTGATCATACAAGTGTCAATTGAGAAGACACAGTG  
ATCTTTAGTACTAAAGGAGTAGGAGGACCTAGTGTGCTGCTAATGTTTACTCTTGATATATATGATCAATAACTAAAGAAGATTACGCAAGGGC  
CGTACAATTCAGGATACAGGAATATTGGCAAGGATGGCAAGTAGGAGATATTGGTGTGACAGTCTTAAAGTAGTTGACAGCTGAAGCTGGT  
GCAGATATATTTTGTTCGGAATAATCTGTTGATAAGGAAATTAAGAAAGTTAATCCAAATGCTATAAGTAATTACGAAGAAGCCAAACGGGCA  
GCCAACGACTAAAGACCAAAATGAAGATTGTTCTCTGTTACGACTGTTTCAAGAGGCACCTGGTTTATCTTCGCAA

## SEQ ID 142

MKRLKKIKWNLVGLLALISLLALFFPLPYIEMPGGAYDIRTVLQVNGKEDKRKAYQFVAVGISRASLAQLLYAWLTPFTEISTAEDTTGGYSD  
ADFLRINQFYMETSQNAIYQALSLAGKPVTLQYKGVYVLDVNNESTFKGLHLADTVTGVNGKQFTSSAELIDYVSHLKLGDVTVQTSNDKPK  
KGVGRIIKLNKNGKNGIGIALTDHTSVNSEDVIFSTKGVGGPSAGLMFTLIDYDQITKEDLRKGRTIAGTGTIGKDEVDIGGAGLKVVAAEAG  
ADIFFVPNNPVDKEIKKVNPAISNYEEAKRAAKRLKTKMKIIVPVTQVEALVYLRK

## SEQ ID 143

ATGACAGAGCTTATAAGAATACTACATTTAAATGATCTGCACTCTCATTTTGGAGAATTTTCTTAAGGTAAACAGATTTTTCATGACAATCAAGCG  
CAGCCAATAGAGACGATTTCACTTGACTTTGGGGGATAATATTGATAAAAGCCATCCTTTGACAGAAGCAAGCTCGGGAAAGGCTAATGTCCAATTG  
ATGAATGAATCGGTATTGAGCTTGCTACTATTGGTAATAATGAAGGAGTTGGTTTATCCAAAAAGACTTGGACCAAGTCTACAAAGATTTCAGAT  
TTTACGGTTATTGTTGGCAATCTAAAGATAACATAATCGAACCGAGTTGGGCAAAACCTTACATTATTTATGAGACGCGAGCAAGGAACCTAAGCTT  
GCCTTTCTAGCTTATCTTTCTTATTATAAAACCTATGAACCTAATGGGTGGACGATAGAAGATCCAATTGACTGTCTTAAATGCCATTTACAA

ATAAATGAGATAAAAAGAGGCAAATTGTCGCATTTTGATGAGTCATTTAGGTATTCGTTTTGATACAAGGATTGCTCAAGAAATTTTCAGAAATTGAC  
CTTATTATAGGTGCACATACACACCATTTATTTGAGGAAGGGGAGCTAATTAACGGTACATATCTTGCAGCAGCTGGTAAATATGGTCGCTTTGTT  
GGGAGTATTGATAAACTTTTGATAATCATACACTAAAAGATATTTTAATCTCAACAATGTGATACAAAACAACTAAGTGGTTATCCTTCGGACAGT  
GACTGGCTAAGAAGATTGAGTCAGAAGGTAAGAACAGCTTAGAAAAGAAAGTT

SEQ ID 144

MTLIRILHLNDLHSHFENFPVKRFFHDNQAQPIETISLDLGDNIDKSHPLTEASSGKANVQLMNLGIELATIGNNEGVLGSKKDLDDQVYKDSDFTVIVGNLKDNIIEPSWAKPYIIYETQOGTKLAFLAYTFPYKYTYEPNGWTIEDPIDCLKHCLQINEIKEANCRILMSHLGIRFDTRIAQEFSEIDLIGANTHHLFEEGELINGTYLAAAGKYGRFVGSIDITFDNHTLKDILISTCDTKQLTGYPSSDSDLRRLSOKVKNSLEKKV

SEQ ID 145

ATGGATGCGATGCTGTTTTACGCAGGTGCAGATGTTGCTATTATCAATTCTGGCTTAATTGTTTCAGCCATTGTGAAAAAGACTTTTCGAGGAAAAAT  
CTCCACGAATCATTTACCTCATCAATAGCGCCTCGCTAAATTGACAGTGAGTGTCAAGAACTTTTAGAGATTTATGAAACTATTTATCAACAAGGT  
CAATTTTTCAGCGACCAAAAGATTTCATGGTATGGGCTTTTCGTGGCAAGTGCTTTCGGTGGAGAAGTTTTACATTCGGGATTGTATTACAAAAATGGAAAA  
ATAGTGTAATAGTAAAGAGATATTGATGCGCAAAGAAAGAGTATTCTGTGAATCGTGATCAGTATTATTTGCGATCGTATTTTGAGTGTTTAAAA  
ACGAAAAAAGTAGACTTGCCTTTCTGTAATTACTCAGAGATGTGGCAGCAGATTATT

SEQ ID 146

MDAMLFYAGADVAIINSGLI VQPFKDFSRKNLHESLPHQMLAKLTVSSQELLEIYETIYQQGQFLAQQKIHG MGRKCFGEVLHSGFDYKNGK  
IVYNEKDIDAKEEVLIVDQYYFASYFECCLKTKKVDLLFLNYSEMWOQII

SEQ ID 147

ATGCCAAAAGAAAGTGACACCAGAGAGGCTTAACATATAATAGTATCTCTGGCCACAGTTCATTCACTTTGAAAAATATCGTTAAAAGTGATGATATT  
GAATTTCAACTTGTTATTAATAGAAAAATCAGCTTTTGGATGTACTCTTTTGACCAACGTTTTCTTGAGATTTTATTAATAATATGATTTTATCTCGTT  
GGCGATTGGGGTACAGCAGCTTGAGGCTTAAGAGGCTTTTACAAAGATGCTTAGTACAATAGAAAAAATAGCCGGATTTACGTTTAGAAGATTAT  
ATTAAGAGATTGTAACTTTGGTTGTGCTTATTTTGTGTTGGAGATCCAAATCCTAGAGATATTAATTTGATGATGAAGACCTCATTAAGCGT  
CTGAAGTCAGAGATCCCAATTCACAACTCAAAAGTCAAAAGTCAAAATATCGTTCCCGATCAAAATGCTCATTTTACAAGATAAAAGCGT  
CAAGACAAAAACCGGCTCAAGACGTCAATATAAAGAGAGCAAGATAAAGCAATGACCTCTGCAAGACGACATTTTGTATTTCGTAAGAAAAAA

SEQ ID 148

MRKEVTPPEMLNYNKYPGPQFIHFENIVKSDDIEFLVINEKSAFDVTVFGQRFSEILLKYDFIVGDWNGEQLRLRGFYKDASTIRKNSRISRLEDY  
IKEYCNFGCAYFVLENPNPRDIKFDDERPHKRRKRSKSSQSSKSQTRNNRSQSNNANAHFTSKKRKDKTRRQERHIKEEQDKEMTSAQHFVIRKKI

SEQ ID 149

ATGGATTTTTTCAGAAAGGTGTCAAATGAAAAAAGAAATTTTCGCAGAAATGTACAACATAATAAATTTCCAGGTCCCAAATTTATTCATTTTGAA  
GAGCAAGTTAAGGCTGAAGGCATGTAGTTTGTACTCTTAGAAGATGTTAAAGCAAGCTTTTGATACGACTAGCTTTGGTCAACGTTTATACAGAAGTT  
CTCTAAAGTATGACTATATTTGTGGCATTTGGGAATGAACAGCTTCGTTCTAAAGGGTTTTTAAGGATAGTGACGATATCAAGAAATCAAGAAAT  
CGCATCTCAGCTTTTAGAAGATTATATTAAAGAAATTTTGCAATTTTGGTTGTGCTTATTTTGGTTTTAGAAATCTTCATCCCAAGATATAAAGATTT  
GAAGAGGAGCGCCAACCAAGACGAAAGAAATCACTTAATCAAATCAAATCGTCGCAAGCCAAACTATTCAAATCAGCAGCCCGCAACACCTAAG  
AGCAATCGAAGCGGGCATCAAAAGAAAGCAACCTGAAACCAAGCGTTTACAGTCAAAACGTCGAAGTAATATCAGCATAAAGAAAAGTCA  
AAACGTAATCAGACTAGTCAACTTAATACAAATTAAGTCATTTTATCATCAAGAAAGAGATAAA

SEQ ID 150

MDFSERCQMKEISPENYNYNKFGPKFIHFEEQVKAEGIDLLLEDVKNAFDFTTSFGQRYTEVLLKYDYIVGDWNGEQLRLKGFKYKSDDDIKKTNRISRLDYIKEFCNFGCAYFVLENLHPQDIKFEEERQPRRKSPKSKSNRRKPNSYNQQPATPKSKSKRASKEKQPENQAFTSQKRRSNTKHKEKSKRNQTSQLNTKISHFIIRKKDK

## SEQ ID 151

ATGAAGAAAGAAAATATTATGCCATAAAAAACGTGATACACCCGCCCTATAAACCCCTCTATTATAGCTTAACTCGCGATGAACATAAGCTTGGGCT  
ATTGAACATCGAGAGAAAAGAAATCCGTGCTCTACAAATCTGGGACGTGGCTCTATAAAAAGCGGTGTGCAAGCTTCGATGAAATGCATAACATTCC  
AAAGATTTTATGCACTTTTGAACGAGAAATTTGTTGTTATCTCTAAAAACGATATGTTCAAGAATCTGCTGATGGAACCTGTTAAATACCTT  
TTGAATTACCTGATGGCATGCTGATGTAGACCGTTTTGATGCGCTCAACATTATGGTTTATCAGTATGTGTAACGACCTCAAGTTGGTTGTACATT  
GGTTGCACCTTTCTGTGCAAGTGGTTTAATAAGAAACAACGTGATCTTAACAATGGCGAAATCACTGCTCAAATATGCTTGTTCAAAAATATTTT  
GATGAACGTGGACAGAGTGCAGCGCTTAGTCATGTTGGTTCATGGAATAGGTGAACCTTTGATAACATATAACCAATGTAATAAAATCTTTCGCT  
ACAGTTAATGATGATGAATGGATTAGCTATGCTGTGCACGTACATATCAGTGTCTACTTCAGGTTTAGCACATAAAATTCGTAATTTGCAATGAA  
GGTGTACAAGTTAACTTAGCAGTATCTCTTCATGCTCCAAATACGAATTTAGCATCAAGTATCATGCGTATTAATCGTTCCTTCCCTTGTGAAAAG  
TTGTTTGGCGCTATTGAATATTATATTGAGACGACTAACCGCTCGTGAACATTGAGTATATTATGTTAAATGGTGTCAACGATACCCAGAAAAT  
GCTCAAGAGTATAGCAGATTTAACGAAAAAGATTCGCAAAATTACTTATGTCAATTAATTCCTTCAATTCCTGCTCAGAACATGACCAGTATAGT  
CGTAGTCTCTAAGACGCGTGTAGAAGTTCTATGACGTTTTGAAGAAAAATGGAGTTAACTGTGTTGTTTCGTCGAAGAACATGGTACGGACATTGAT  
CGAGCTTGGCGGCAATTACGTTCAACACCAATGAAACGCGATCGTCAAAAAGCGAAGGTAGGGCAG

SEO ID 152

MKKENIMPKKTDTPAYKPSIYSLRDELIAWAIEHGEKKFRASQIWDWLYKKRVQSFDEMTNISKDFIALLNENFVVNPLKQRIVQESADGTVKYI  
 FELPDGMLIBETVLNQHGYGLSVCTVTQVCGNICGTQVCSAGLIIKKORDLNNGEITAIQIMLVQKYFDBRGQGERVSHVIMGIGEPFDNYNTVLKFLR  
 TVNDNDGLAIGARHITVSTSLGAHKIRFENAGVQANLVSLHAPNNDLRSSIMNRINRSFPLEKFAAEIYYIETTRNRVTFFEYIMLNGVNDTPEN  
 AQELADLTKKIRKLSYVNLIPYNPVSHEHQDYSRSPKERVEAFYDVLKKNQNCVVRQEHGTDIDAACGLRSNTMRDRQKAVGO

SEQ ID 153

ATGAAACCATCGATTATAGCTTAAACACGCGATGAACGTGATCGCGTGGGCAGTTGAAACGCGGCCAAAAACAGTTTATAGCTACTCAAATTTGGGAT  
TGGCTCTATAAAAAAGAGTTCAATCTTTTGAGGAGATGACGAAATATTTCTAAAGATTTTGTGTTCTATTTTAAATGATAGTTCTCTGTGTCATCTCT  
TTAAACACAGCGAGTTGTACAAGAGTCAGCTGATGGTACAGCTAAAAATATTTTGAACCTCCCGCATGGTATGTTAAATGAAACAGTTTAAATGCGT  
CAACATTAATGGTCATTCTGTTTGTGTGACGACTCAAGTGGCGTGTAACATTTGGCTGTACTTTTGTGCTAGTGGATGTATCAAAAGCAACAGTGTAT  
CTAAACAGTGGGGAAAATTACAGCTCAAATCATGTTAGTCCAAAAATATTTTGACGATAGAAAGCAAGGTGAGCGGGTTAGCCATGTTGTGCGTAATG  
GGCATTTGGTGAACCTTTTGATAAATTACAAAAATGTCAATGTGCTTTCTTCGCGTCATCAACGATGATAATGGCTTAGCAATTTGTCGCCCGTCATATT  
ACAGTCTCTACCTCAGGGTTAGCTCAACAAGATTCCGGAGTTTGCAAACGAGGGGAGTACAGGTTAACTTAGCAGTCTCGTTGCTACGCCAAATAAT  
GATTTACGTTCAAGTATTATGCGAGTAATCGCTCTTTTCGCTTGAAAAGCTCTTTTACGCTATAGAATACTATTATTGAAAAACGAATCGTCGT  
GTCACTTTGAATACATTATGCTAAATGAAGTTAAACGATAGCATTAAAGCAAGCTCAAGAATTAGCAGACTTAACATAAACTATTTCGTAAGTTATCT  
TATGTTAACTTGATTCGGTATAATCCTGTTTCAGAACATGATCAGTATAGTAGAAGTCCCTAAAGAGCGAGTCTTAGCGTTTTATGATGTGCTAAAG  
AAAAATGGAGTTAACTGTGTGGTGGCTCAAGAGCAGCGAACAGATATTGATGCAGCCTGTGGCCAGTTACGTTCTAAACAGTGAAAAAAGATCGC  
AAAAAGGTTTACAGCGACAAAA

SEO ID 154

MKPSIYSLTRDELIAWAVERGQKQFRATQIWDWLYKKRVQSFEBMTNISKDFVSILNDSFCVNPLKQRVVQESADGTVKYLFELPDGMLIETVLMR  
 QHYGHSVCVTTQVGCNIGCTFCASGLIKKQRLNDSGETAQIMLVQKYFDDRKQGBRVSHVVVMGIEGPPDNYKNVMCFLRVINDDNGLAIGARHI  
 TVSTSGLAHKIRDFANERGQVQNVLASVLPANNDLRSSIMRVNRSRFPLEKFLSAIEBYYEIKTNRRTVFEYIMLNEVNDNISKQAEADLTKTIRKLS  
 YVNLIPYNPSEHDQVSRKPERVIAFYDVLKKNGVNCVVRQEHGTDIDAACGLYCTMKKDREKVTATK

## SEQ ID 155

ATGCTTAAAGATTACTTACTGAAGATGGGGAATTGACAAAGATTAGTCGTCGTTTCGTTTGGATGTTAGTGAATTATCTATTGCTTATTATTGTC  
AGGATGTGTTTTGGGCGCTCAAATTTATGATTGAGGGGGTATCAACTCCGAATGTTACAGCGCTTCGGAAGAATTGTAGCTCTTTTAGTACCATTATAAT  
TCTTTTCGTAGTTTAGATCAGCTAACTAGCTTTAAAGAGATTTTTTGGGTTATTGGTCAAAATGTAGTGAATATTTTACTGCTGTTTCTCTCATT  
ATAGGGTTACTATCCCTAAAGCCAAGTTTACGGAAATATAAAAGCGTTATATTACTTCTTCTTGATGCTATTTTATAGAGTGTACTCAAGTT  
GTTTTAGATATTTAATAGATGCTAATCGGGTTTTTGAATCGACGATCTATGGACAAATACCTTAGGCGGTCTTTCGCCCTATGGACTTATCGA  
AACATAAAAGGTTGGCTTCTAATATTAGAAAA

## SEQ ID 156

MLKRLLEBDGELTKISRRFVWMLVVIYCLIIVRMCFGPQIMIEGVSTPNVQRFGRIVALLVPFNSFRSLDQLTSFKEIFWVIGQNVNILLFPLI  
IGLLSLKPSLRKYKSVILLAFMSIFIECTQVVDLILDANRVFEIDDLWNTLGGPFALWTFYRNIKGWLLTIRK

## SEQ ID 157

ATGTCATTATAAAAAATTTGTGGTGGTTTTTAAAGGAAGAAAAAGCGCTATCTTATTGGAATTTGTCTAATAAGTTTGGTTGCGGTGTTAAAT  
CTTATCCCTCCTAAAAATCATGGGATCAGTTATTGATGCTATTACAACCTGGAATAAACAAGACCACAATTGCTCTGGAATTTATTAGGTTTTGGTT  
TTGTCAGCTTTTAGCTATGTGAGGCTGCGTTATATTGGCGTATGTAATTTTAGGCACTTCTTACAATTTGGTTCAGATACCGTTTAA  
TTTGAACATTTTACAAAAATGTCCTCTCTTTTATCAGAAATATCGTACAGGTGATTAAATGGCGCAGCGACCAACGACATCAATTCTCTAACA  
CGTCTTGAGGAGGAGGAGTTATGTGAGCAGTGGATGCTCTATCAGCAGCTTAGTAACGCTTATCACCATTGTTCTTTACTATTTCTGTTGCAATG  
ACATTAATTGCGGTTATCCCTTTGCCCCTAATGGCCTTAGCACTAGTAAATTTGGGGCGAAAAACCATGAACCTTCAAAGAATCTCAGGCAGCC  
TTTTCAGAATTAATAATAAAGTGCAAGAAAGTGTCTCTGGCGTCAAAGTGAATAAGATATGATATTGATTCTTTAGATACGAAATGAAGAACTTTAGCC  
GAGGTTAATCAGATGACTTTCTGTAAGAACATGCGGACCATGACTTATGATGTCATGTTTGATCTTTAGTTCTTCTTTTATAGGTGCTCTCTAC  
GTATTAACATTGGCTATGGGAGCTTTTATGATTTCAAAAGGTCAAGTTACTGTTGGTGACTTGGTAACATTGTTGACGTATTAGATATGTTGGTA  
TGGCCCTTGATGGCGATTGGTTTCTTGTTCATATGTTACAGCGTGGTAGTGTCTTATAACCGTATTAATAGCCTACTTGAGCAAGAATCGGAT  
ATAACTGACCTTTAAATCTTATCAGACCTGTTGTCAATGGAACTAAGATATGATATTGATTCTTTAGATACGAAATGAAGAACTTTAGCC  
GATATTCAATTTACCTTAGAAAAAGGTCAAACCTTAGGTTTGGTAGGTCAAACGGGATCAGGGAAGACAAAGTCTTATTAAGTTATTGCTACGTGAA  
CATGATGTGACTCAGGGAATAATTAATTTAAATAAATGATATACGTGATTATCGATTGCTGAGTTACGTCAACTAATCGGTTATGTTCTCTCAA  
GATCAGTTTTTATTGCTACAGTATTTTAGAAAAATGTTTCGCTTTGGAAATCCAACTCTATCTATCAATGCTGTTAAAAAGCAACTAAATGGCT  
CATGTTTACGATGAGCTTCAATCAGATGCCAGCAGGATTGAGCTCTAATTTGAGAAAAAGGAGTCTCATTATCTGGTGGCAAAAAAGGATT  
GCGATGAGTCTGCCATGATTTTAGATCCAGATATTTCTATTTTGGATGATTCTCTATCAGCAGTGGAGCGTAAAGCAACATGCCATTATTGAA  
AATCTTAAACGAATCGTCAAGGAAATCGACTATTATTCAGCACATCGATTATCAGCTGTTGTGACGCGAGACCTTATCTTAGTTATGCAAGAC  
GGCAGAGTCATCGAGCGAGGTCAGCATCAAGAGTTGCTAAATAAGGTGGTTGGTATGCTGAAACGATATGCCTCACAGCAATTAGAAATGGAGGAA  
GCATTTGATGAAGTC

## SEQ ID 158

MSIIKNLWFFKEEKRYLIGILSLSLVAVLNLIIPPCKIMGSVIDAITTGKLRPQLLNWLLGLVLSALAMYGLRYIWRMYILGTSYKLGQVVRYL  
FEHFTKMSFSFYQKYRTGDLMAHATNDINSLRLAGGGVMSAVDASITLVLTIMFTTISWQMTLIAVILPLMALATSKLRKTHETFKESQAA  
FSELNNKVQESVSGVKVTSFYQEQEIASFQEVNQMTFVKNRMTYDVMFDPLVLLFIFASVYVLTAMGAFMISKGQVTVGDLVTFVYLDMLV  
WPLMAIGFLTFNMGVSYNRLNSLLEQESDITDPLNPIRPVNGTIDYDFRYDNEETLADIHFTLEKQTLKGLVQVGTSGSKTSLIKLLRE  
HDVTQGGKITLNKHDIRDYRLSELRLQIGYVPQDQFLFATSILENVRFGNPTLSINAVKKATKLAHVYDDIKQMPAGFETLIGKEGVSLSGGQKQRI  
AMSRAMILDDPILILDDSLSAVDAKTEHAIENLKTNRQKSTII SAHRLSAVVHADLILVMQDGRVIERGQHQLLNKGGWYAETASQQLMEME  
AFDEV

## SEQ ID 159

GTGATGAAAAACAGCAGCTTTTTTCTGGTTTTATTTTAAACGCTATCGTTTCTCATTTACTGTCTATTGCTGTTGCCGTTATCTTAGCACTTATTTA  
CAAGTAAAGCTCCTGTCTTCTTAGGAGAGTCTTGACTGAGTTGGGAAAAATCGGTACGGCTTATTACGTTGCTAAGATGAGTGGCCAGACACAT  
TTTAGCCCTGATTTTATCAGCTTTTAAATGCCGTGATGTTTAAAGCTTTTGATGACTTATTTCTTACTGTTTATAGCTAATCTAATATATAGTTTCTTA  
CTTACAGTGTTTGTCTACATTCGACTAACCGATGCGCAAGGGCTTATTTAGTAAATAGAACGTTTAAACCGTCCGCTTTTGTACCGCCATAAA  
GATGGGGAGATTCTTCTCGTTTACAGAGTGAATTTGGATAATATCAAACCTCGCTGAACCAATCCTTGATTCAAGTGGTGACTAATATTGCCCTT  
TACATCGGCCTGCTGATGATGTTTAGGCAAGATAGCCGTTTAGCTTTGTTAACCATCGCATCAACCCAGTTGCTCTCATTTTTTTAGTGATT  
AACATCCGTTTGGCAAGAAAAATACACCAATATCCAAACAGCAAGAAAGTCAAGTGTGTTTAAATGCTTTTATGGAAGAAACATTTCAGGACAAAAGGCT  
ATTATTGTACAGGTGTCCAAAGATACAGATGACAGCCTTTTAAAGCAATATGAAAGGGTTTCGACAGCCACCTTCAAACGCCGCTGTTCTCA  
GGACAATTATTTCCAGTCATGAATGGAATGAGCCTTATTAACACGGCTATCGTGATTTTGTGCGGTTCAACCAATTGTCTCAAGTACAAATCTATG  
CCAGCAGCGGCAGCGCTTGGTTTAGTGGTTACTTTGTACAATATCCAGCAATATTACCAACCCATGATGCAATCGCGTCTAGTTGGGGAGAA  
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AAGAAGCAGTGGCGATTAAACAGTCGATTTTGGGTATCTTCTCGGCAAAAAGTTTATCAGATGTGTCAATCGTTGCACCAAGGCGCAAAATG  
ATTGCGGTGGTGGAGCCGACAGGCTTTCGAAAGACCACTATTATGAACCTTGATTAACCGTTTCTACGATGTGATGCAAGTTTACCTTTGAT  
GGCCGTGATATTCTGACTACGATTGGATAGTCTTCTGCTCAAAGGTAGGGATTGTGTGCAAGAGTCAAGTTCTTTTTTTCAGGAACCATACGGAT  
AATATTCTGTTTTGGTGATCAGACCATTAGTCAAGACATGGTTGAAACGTGCTGCGCGTCCGACCATATTCATGACTTTATCATGTCTCTTACAAAA  
GGGTACAATACCTATGCTCAGATGATGACAATGTCTTTCAACAGTCAAGAGCAGTTGATTCTATTGCTAGGACGCTAGCTGACCTGAA  
GTGTTGATTTTGGATGAGGCCACTTCAAATGTTGATACGGTTTACCGAAGTAAATTAACCGGCGATGGAAGCTGCTGCGGACGATGCAATGAGC  
TTTGTCTATGCTACCGCCTCAAACCATTTTAAATGCCGATCATTATTGTGTTGAAAGATGGCAAGGTCAATTAGCAAGGAAATCATCATGAG  
CTATTGCATCAAAAAGGCTTTTATGCCGAATTGATCACAATCAATTTGTCTTTGAA

## SEQ ID 160

VMKTFARFFWYFKRYRFSFTVIAVAVILATYLVQKAPVFLGESLTELKIGIQAYYVAKMSGQTHFSPDLFAFNAVFMKLLMTYFFTVLANLIYSFL  
LTRVVSHTNMRMRKGLFGKLERLTVAFFDRHKDGEILSRFTSDLDNIQNSLNQSLIQVVTNIALYIGLVMMFMRQDSRLALLTIASPVALIFLVI  
NIRLARKYTNIIQQEVSALNAFMDETISQKAIIVQGVQEDTTAFLKHNERVRQATPKRRLFSGQLFPVVMGMSLINTAIVIFVGSITVLSDKSM  
PAAALGLVVTTFVQYSQQYYQPMQMIASSWGEQLQAFTHGRIQEMFDETEEVRPQNPAPFTSLKEAVAINHVDGFLYLPQKVLSDVSIAPVKGKM  
IAVVGPTSGGKTTIMNLINRFYDVDAAGSITFDGRDIRDYDLRLQKVGIVLFSGTTIDNIRFGDQTSIDQMDVETAAARATHIDFIMSLPK  
GYNTYVSDDDNVFSTGQKQLISARTLLTDPEVILDEATSNVDTVTESKIQRAMEAVAGTSFVIAHRLKTLINADHIIVLKDGVKIEQGNHHE  
LLHQKGFYAELYHNQFVFE

## SEQ ID 161

TTGATGAAGTCTAATCAATGGCAAGTCTTTTAAAGAGATTAAATCTCCTATTACGCCCTTATAAATGGTTTACAGTATTAGCTCTATCTCTCTTATTG  
TTGACGACTGTTGTTAAAAATATTATTCCTTTAATTGCTTACATTTTATTGATCATTATCTGACAAATGTTAATCAAACAGCAGTTCTTATTTTA  
GTGGGATATTATTCAATGTATGTCTTGACAGACCTTAATTCAATATTTTGGGAATCTCTTTTTTGGCGGTGTTTCTTATAGTATTGTTAGAGATATT  
CGTAGAGATGCTTTTGTCTAATATGGAAAGGCTTGGCATGCTTATTTTTATGATAGGACACCGGCAGGATCTATAGTGTACGTTATCTAATGATCT  
GAAGCAATATCTGATATGTTTTCGGGTATTTTATCGAGTTTATCTCGGCGATATTTATTTTACAGTTACTCTGACACTATGTTGATGCTAGAC  
ATTAACTTAACAGGACTTTTTCGCTCTTTTATTACCTGTATCTTTATATTAGTGAATGCTATCGGAAAAATACAGTCACTGCTGCTAAACG  
AGAAGTTTACTTAGTGATATCAACAGTAAATATCAGAAAGTATTGAAGGAATTCGATGTACAGGCTTTTGGTCAAGAAGAGCGCTTGAAGACT  
GAATTTGAGGAAATTAACAAAGAGCATGTTGTGTATGCCAATCGTCTTATGGCTCTTGATAGTCTCTTCTTAAAGCCGCGATGCTCTTTTTAAA  
CTCCTAGCATATGCTGTTCTTATGGCTTATTTTGGATTACAGGAGTTAAAGGAGGCTTACGGCAGGATTGATGATGCTTTTATTCAGTACGTT



AATCGTCTCTTTGACCCCTTAATTGAAGTAACGCAAAATTTTCAACCTTACAAACATCAATGGTATCAGCAGGGCGTGTGTTGATTGATTGAT  
GAAACAGGTTTTGAACCAAGCCAAAAAATACAGAAGCTTTTGTGAGAGAAGGAAATATCGAATTTAAAAATGTATCATTTCTCATATGATGGAAAA  
AAACAAATCCTTGATAATGTTCTTTTAGTGTTAAAAAGGTGAAACGATTGCTTTTGTAGGAGCGACAGGTTCTGGAAAAATCATCTATTATTAAT  
GTCTTTATGAGGTTTTACGAATTTCAATCTGGACAAGTTTATTATGATGGGAAGGATATTAGGGATTACTACAAGAAACAATGCGAAAGAATATT  
GGACTCGTCTTACAAGACCCCTTTTATATCATGGCACTATTAAATCTAATATCAAAATGTACCAAGACATCACCGATCAAGAGGTACAGGACGCA  
GCAGAGTTTGTGTGATGCTGATCAATTTATTCAGAAGTTGCCAGATAAGTACGATGCAGCTGTTTCAGAACGTTGGGTCAAGTTTTTCGACTGGACAA  
CGCCAACTATTGGCCTTTGGCAGAAGTGTGGCTAGTAAACCTAAAATTTTAACTCTAGATGAAGCGACAGCAAAATATTGATTTCGGAACAGAGCAG  
ATTGTACAAGATTTCGTTAGCAAAAATGCGTCAAGGTGCAACAACTATGGCCATTGCTCACCCTTATCAACATTCAAGATGCTAATTGTATCTAT  
GTTCTTGATAGAGGAAAGATAATTGAAAGTGGGAATCAGAGTCTTTATTAGACCTAAAAGGACTTATTATCGTATGTACCAATTACAAGCTGGC  
ATGATGGAGGTC

SEQ ID 162

MMKSNQWQVFKRLISYLRPYKWFTVLALSLLLLTTTVKNIIPLIASHFIDHYLTNVNQTAVALILVGYYSMYVLQTLIQYFGNLFARVSYISIVRDI  
RRDAFANMERLMSYFDRTPAGSIVSRI TNDTEAISDMFSGILSSFSIAIFITVTLYTMLMLDIKLTGLVALLLPVIFILNVYRKSVTVIAKT  
RSLLSIDINSKLSIESIGIRIVQAFQBERLKTEFEEINKEHVYANRSMALDSLFLRPAMSLKLLAYAVLMAYFGFTGVKGLTAGLMYAFIQYV  
NRLFDPLIEVTQNFSTLQTSMSVAGRFDLIDETGFEPSQKNTEAFVREGNIEFKNVFSFSYDGGKQILDNVFSFVKKGETIAFVGATGSGKSSIIIN  
VFMRFYEFQSGQVLDDKDIRDYSQELRKNIGLVLDQDFLYHGHTIKSNIKMYQDITDQEVQDAAEFVDADQFIQKLPDKYDAAVSERGSSFSSTGQ  
RQLLAFARTVASKPKILILDEATANIDSETEQIVQDSLAKMRQGRITIAIAHRLSTIQDANCIYVLDRGKIEBSGNHESLLDLKGTYYRMYQLQAG  
MMEV

SEQ ID 163

GTGTATAATGAGGTCAAAGTGCAAGGAAAGGCTATATAAATGTTACTATTGGTAGATAAATTACGATTCTTTTACCTATAATTTAAAGCAATATTTA  
AGTGTCTATAAAGAGGTATTTCGTATATAAATGATGTTTCTTAACTTTTTTATTAGCTGAGAGCGCAGAAGCCATCGTCTTATCACCTGGACCA  
GGACACCCAAAGGATGCTGGGAAAATGGTAGAATTAATCAATCAGTTTATAGGAAAGAAACCTATTCTAGGTATCTGTTTGGGGCATCAAGCGCTT  
GCCGAGTGCTTGGGTGGGCGATTAAATTTAGCAAATCACGTTATGCATGGTAAACAAAGTTGGGTAAACAATAACGACCATACTAGTTTGTTTAAG  
GGAATTGATAGTCCAACCCAAGTTATGCGTTATCATTTGTTAGTGTGATTTATACCAGAGAATATTGCTGTTATTGACGATCAAAATGAGGAT  
AATGAAATCATGGCATTCCATTGCCCCAGCTTAAAGGTATATGCGATGCAGTTTCATCTGAGTCAATCGGAGTATTGATGGAATGAAATGATT  
GAAAACCTTTTTCAGCTTAATTAATGAC

SEQ ID 164

MYNEVKVQGVYKMLLLVDNYDSFTYNLKYLSVYKEVFVKNVNLFLLAESAEIVLSPGPGHPKDAGKMVELINQFIGKKPILGICLGHQAL  
AECLEGRNLNLANHVMHGKQSVWVTINDHTSLFKGIDSPTQVMRYHSLVVTDLPENIAVIARSNEDNEIMAFHCFPSLKVYAMQFHPESIGSIDGMKMI  
ENFLTIND

SEQ ID 165

ATGATACTCTTAATTGATAATTACGATTCAATTACCTACACCTCGCCCAATATTTAAGTGAATTTGACGAGACGATTGTCTTGTATAACCAAGAC  
CCAACTTATATGACATGGCCAAAAAGCTAACGCTCTAGTCTCTACCTGGTCTGGTGGGCCAAGGAAGCCAAACCAATGCCAAAACCTCATT  
CAAGACTTTTACAAACAAACCTATCTTAGGAGTGTGCTGGGACACCAAGCTATCGTGAAACTTTAGGGGGAACCTTACGCTTGGCCAAACGC  
GTCATGCATGGGAGACAAAGCACCAATTGAAACGCAAGGCCCTGCTAGTCTTTTTCGCTCCCTGCCACAAGAGATCACCGTCATGCGCTACCACTCC  
ATCGTTGTGATCAGTTACCAAAAGGTTTTAGCGTAACCGCTAGAGACTGTGACGATCAAGAAATCATGGCATTGTAACACCACACCTGCCACTT  
TTTGGGCTACAATTTACCCAGAAAGCATCGGAACCTCTGATGGCATGACCATGATTGCCAATTCATCGCAGCCATTCCCGCT

SEQ ID 166

MILLIDNYDSFTYNLAQYLSFDEITIVLYNQDPNLYDMAKKANALVLSPGPGWPKEANQMPKLIQDFYQTKPILGVCLGHQAIATLGGTLRLAKR  
VMHGRQSTIETQGPASLFRSLPQETVMRYHSIVVDQLPKGFSVTARDCCDQEIMAFEHHTLPLFLGLQFHPESIGTPDGMTMIANFIAAIPR

SEQ ID 167

ATGAAAACAAGAACAACCTACCTATATTGCACTCATGGTTGCACTACTTATTGTTTTAGGTTTTATCCCAGGGATCCCATTAGGTTTCATTCCAGTC  
CCAATTGTTTTTACAAAATCTTGGTGTTATGCTGGCAGGTGCTCTGCTTGGTAGTAGGAAGGGTTTTCTAGCTGTGGCTATTTTCTTGCTCTTAGTT  
GCTATTGGTGCAACATTTTTACCAGGAGGACGGTCAGGTCTCGTAACGCTGTTTTGGGCCAACAGCAGGCTATCTGCTGACTTATCCATTGTCAGCT  
TTTTTTATCGGCCTAGGGCTTGAGAAAGTGAACAAACAAACTCTGGGTTCATTCCTTATTATTGGATATTGGCGTACTATTGATTGATATT  
TGTGGTAGCATCGTCTCTTCTCTTCAAACCTCTCTACCCCTAACTAAATCACTATTTTCTAACCTTATTTTATTCTCTGGGGATACCTTAAAGCA  
TCCATTTGCTTGATTATTTATCGTAAATTTGCAACAGATTAACATCATCTATACAAAC

SEQ ID 168

MKTRTTTTYIALMVALLIVLGFIPGIPVPIVLQNLGVMLAGALLGSRKGLFAVAIFLLLVAGAPFLPGGRSLVTLFGPTAGYLLTYFPAA  
FFI GLGLEKVKTKLWVQFLIIWIFGVLLIDICGSIVLSFQTSLEPLTKSLFSLNFIIPGDTLKASICLIIRKFNRLTHLYN

SEQ ID 169

ATGTTTACAACCAAGAAGAACTTGTTAAGGTGGCTATGATGACCACCTTGATTATTATTTTAGGCTTTATCTCTGCTATCCCGCTAGGCTTTATCCCA  
GTCCCTATTGTTTTACAAAACCTTAGGTGTCATGTTGGCTGGATTGATGCTGGGTGGTAAAAAGGAACCTTATCTGTTTTCTTATTTTATGTTGATT  
GGCCTTTTCTTACCTGTTTTCTCAGGCTCAAGAACCAACCTTCCAGTATTGATGGGGCCATCTGCTGGCTATGTTATTGCTTACCTTCTGTGCT  
ATTGCTTTTTCTTACTTTTACCGCAATTGGTTCTCAAAAAGCACGCCATTAGCATTTCTAGCTCTTTTAACTCTCAGGAGTTGTACTGGTTGATGTT  
CTGGGTGCTATCTGTTGTCAGCCTACACTGGCATGTCTTGTGACATCGCTTTTCAAACTTGGTCTTTATTCCAGGAGATACCATCAAAGCA  
ATCATTGCGACCATTTATCGTGTAAATACAAAGATAGTTTGAATACAAACAG

SEQ ID 170

MFTTKELVKVAMMTLLIIILGFIPAIPLGFIPVPIVLQNLGVMLAGLMLGGKGTLSVFLVFLVIGLFLPVFSGSRTTIPVLMGPSAGYVIAVLLVP  
IVFSLLYRNWFSKSTPLAFLALLISGVVLVDVLGAIWLSAYTGMSLVTSLSNLVFIIPGDTIKAIATIIAVKYKDSFNLTKQ

SEQ ID 171

GTGACTAATGATTCAAAATCTCAAAATGGACCTCTCGTCCAGCGCTTAATCTTAATTCCTTGAAAGGAAAAACAAACGCAACATGGCCATAATT  
TTTAAGCATTTAATGGGAGTCAAA

SEQ ID 172

MTNDSKFSKWTSRPALNLSLKGKTKRNMALIFKHLMGVK

SEQ ID 173

ATGCTATTATTAATTTTCGTTAAAGGAGGCTATCATGTCAATTTCAACAAATATATCCATTTGGCTGACGAAATATTATCTGGAAGACTAGCATT  
TCTTATGAACAAGCGCTGGAAATCTAAATAGCGATGAGAAGTGGTGGGAAATCTACGCTGCTGCCTTATACCTTAAAAATCAAGTTAGCCGAAAT  
AATATTCCGCTTTAAGCTTTTATTAAGTGCTAAGCAAGGACTTTGTGCAGAAAATGTGGTTACTGTTCTCAATCTAAAGAAAGCACTGCTGACATT  
GATAAATTTGGTCTGCTTCTTCAAAATGTCATTCTAAACAGGCTATTGTGCTCATCAAAATGGTGTAGCGTCTTTTGTATTGCGATGAGTGGGA  
ACTAAGCCTAGCAAGAGAGAAAATTGAGCAGTTATGTCAAGTCACTCCCTGAAATCAAAAAAGCCTCCCTCTAGAAAATATGCCCTTACCGTGGTTTT  
TTGGATAGAGAACAACTTATCAGCTAAACAAGCAGGAATTGACCGTATCAATCATAATCTCAACACCCCGGAAGAAAACCTACCCCAACATTGCA  
ACGACGCATAGCTTCAAGATCGTTGTGATACCTTAGAAAAGAAATTCACAAATGAAGACATTGATGTTGTTCTGGATTCAATTTGTTGGTATGGGAGAG  
AGCGATGAGGGCTCATCAGATTAGCTTTCAGACTAAAAGAGCTGGACCCCTATTCTATCCCTGTCAATTTTTTACTTGCTGTTGAAGGAACACCT  
CTTGGAAAATATACTATTGACTCCCATTTAAATGCTTAAAAATTAGGCCATGTTGCGTTTTGTTTTCTTTCAAGGAATTAAGATTAAGCGCT

GGACGAGAGGTCATTTTGAGAATTTTGAATCATTAGTCACCTTACTTGTTGACTCAACTTTTTTGGGAAATTACCTAACAGAGGGCGGTCGCAAT  
CAACATACCGATATTGAATTCCTGGAAAAATTACAATAAATCATACTAAAAAGGAATTAATT

SEQ ID 174

MLLLISLKEAIMSFQTNHYHLADEILSGKTSISYEQALEILNSDENWWEIYAAALYLKNQVSRNNIRNLVLLSAKQGLCAENCGYCSQSKESTADI  
DKFGLLPQNVLKQAIWAHQNGASVFCIAMSGTKPSKREIEQLCQVPEIKKSLPLEICLTAGFLDREQLHQLKQAGIDRINHNLNTPPENYPNIA  
TTHSFKDRCDTLERIHNEIDVCSGFCICMGESDEGLITLAFRLKELDPYSIPVNFLLAVEGTPLGKYNLYLTPIKCLKIMAMLRFPVFPFKELRLSA  
GREVHFENFESLVTLVLDSTFLGNLYLTGGRNQHTDIEFLEKLQLNHTKKELI

SEQ ID 175

ATGATATACCTGGTCTTATATTTTFCGGGAGATAGAAGTGA AAAAATCATTTTAAAAAAGCGGATAGCTATGTGCCGAGATTGGCCGCTTAATTTTGTGTA  
ATTGTGAACTTATGTTTGTATCAAAAGGAGGATGGCTCATCTGATAATATTTAAATGGATTTCTTAAGAGAAATTTCTGAGGTAAACGGTAACTGATCAG  
CAATGGATTATACCAATTTGAGGATGCTTAATTTACCAAAATCTTAAGCAATTTCACTAGCATCCGATGCTGCTGTCGCAAGGGAAGGAAGAGCGTAGT  
CTTATTTTCAATAGAAGATGTCAAAATTTCACTAGCTTAGTGCGAGATAAAAATCCTTTTCACCAAGGGGAAGCAGCTATTGTGCTCTGCGCTCTTA  
TTATTGGAAAAATAATGGAAGTTAGAAAAGGAAAAATAAGGAGGATTCATTTGACTTTTTTATCTCCAGTAGGGTGAATCAAGAAATTTCTCAGTG  
CAAGTAGTGGATAACACAGTGATTTTTCAGGATCAAAATATTATGG

SEQ ID 176

MIWYSYILTGDKMKKLFKKAIAIMCRDLPLNFVIVELSLYQREDGSSDNIKWISKRILEVTVTDQQWIYHLRMLNLPKLKPMSSLASSDCPAREEKAS  
LISIEECQKFTSLVRDKNPFHQGEAAIVPAALLLEKIMEVRKGKIKEIHLTFLSPVRVNQEFVSQVVDNTVIIIFQHQILW

SEQ ID 177

TTGTTTAATGCACGATGCTGCTGCATTTCTAACGCTTCAGAGTCAGAAAACAGAATTCCGGATTGTTTCACATTGTAGAAGTAGCAGGAGATCCCAA  
GCT

SEQ ID 178

MFNARCCISNASESENRI PDCSHCRSSRRSQA

SEQ ID 179

ATGAAGAATAGAGATGTTTATATTGGTTTTGGGCTACGAACACCTATCGGTATAAAAGGGAAGCAATTTAAACATTACCGTCCGAACTTTTAGGACGACACCTTTTAAATCAAAATAAAAAATAGAAATCAGAAATCTAAACATTGATAGTATATTTTGTGGGAACACAGTTGTTACTGGGGGCAAAATATTGTCGCTTGATGACTCTTTTTCTGATTATGAAATCCTATATTCCGATCAAAAGTATGATGCAGTGTGCTTCAAGATTCTGCCTTGTTTTTGGTGTATCTAAAAATCAGTACCGGTATTAATGAAAAAGTCTTGTTGGGGGGTTGAAAGTAGTCTCTTCAACCTATGAGACGTTATGCTTAAGAAGATAAATCGTAACGGAGAATATACAGTTGCTCAGTTTTCTCCTGACTCTTATGCTGAAACTGTAATGTTAGAAGGGGCCAGAGAGTCTGTCAAAAATATGGTTTTAGAGAAGAAATGTTAGATAAATTGGCATTCTTGAGCCATAAACCGCGCTTAAACAGCTTAACACAGGTGGCTATTTAGAAGAGGTAATCTTACCAATGGAAGGGATGCGAGATCAAGGCGTTAGAAAACTAAAAAGAAACATTTTTCAAAATACCAAGATTGATGGAAATTTCCACTTTGCTCACTATTGGAAATGTTTTGTTAATGCACAGTGTCTGCTCATTTCTAACGCTTCAGAGTCAGAAACACGAATCCGAGTTGTACAGTTGTAGAATGACGAGAGATCCCAAGCTTAGTCCAGAATTGGTTCACACGGCTACGGA AAAACTATTAAACAGAAACTCATACTAAAAATATCGGATTATGATGCAATTGAAATGGAATGAACCAATTCGACGCAATGATGCTCTATTTAATCATATTATGCTGGAAGAGAGAAAAATTCAATATTTTTGGAGGGACATTAGCTTACGGACACCTTATGCTGCTCAGGAATTTAATAATCTCTTATCTTATCCTGAGCAATATAAAAAATAAACCTATGGGTCTAACTGCCATTGCAAGGGCAGGAGGTGCGAATGGCCATATCAATAGAGTACTTAGGAGTTAAGAATGCT

SEQ ID 180

MKNRDVYIGFGLRTPIGIKGQFKHYRPELLGAHLNLQIKKIESESNIISIIICGNTVGTGGNIGRLMTLFSYDYESYIPVQTIDMQCASSSSALFFG  
YLKISTGINEKVLVGGIESSSLQPMRRYAKEDNRNGEYTVAQFSPDSYAETVMLEGAQRVCQKYGFREMLDKLAFLSHKRALTAQGGGYLEEVIL  
PMEGMRDQGVRLKETFFQKLPRLMENSPLLTIGNVCLMHDA AFLTQSQKTEFRIVHIVEVAGDPKLSPELVHTATEKLLTETHTKISDYDAIE  
WNEPFAAIDALFNHYYPEEREKFNIFGGTLAYGHPYACSGIINILHLMQALKYKNKPMGLTAIAGAGGVGMAISIEYLGVKNA

SEQ ID 181

ATGACGGATGTTTATATTGCTGCAAGGCCTTAGAACCCCTATCGGTTTAGTAGGGAAACAATTGCTAAAGAACACCAGAAATCCTTGGAGCAAG  
CTCATCAACGCTTTTACAAATAAGTATCCAGTTCCTCATTGACCAAGTGATTGTGGCAATACCGTCGGAACGGGTGGTAAATTGGGCGCTTGATG  
ACCTTGATTCTCATTTAGGAGAACTCTGCTCTGCTTGACGGTTGATATGCAGTGCGATCAGCTGGTGCAAGCTCTTCCGTGGGTTATGCTAAA  
ATCAAGGCAGGTATGGCAAGCAACCTTTTAGTGGGAGGTTTGAAGACGAGCTCCTTACAACCTGAATCGGTATATGCTTCAAGTATTGGCGCCAA  
GGAGCCTACAAGGTAGCTCAGTTTTCTCCAGATAGTATCAGCCCTTTTGCATGATTGAAGGGGCAGAACGAGTGGCAAGAGAGCATGGCTTTACA  
AAGAGTATTGTAATCATCTGGACATTGAGAAGTCATCAAAAGGCTAGTTATTGCCAGGAGCAAGCCCTGTTAGCTGTAGTATTATTCCTAGACTGTCA  
GGAGCCAGTGAATCAAGGTATTCGACCGCGCTTGTCAAGTAAGGTGTTGTCAAAGGTACCCCTCTTTAGGAGAAGGTACAGTGTATTAGTGCAGCC  
AATGCTCGCTTAACCCATGATGCTGCTGCTCTTTTACAGCTAAGTATGAGCTCAGCCCTCAGCTTTTAACTGATTGATGTGGTGAAGTAGCAGGAGAC  
CCACAGCGTAGCCCTTTAATGGTGATTAAAGGCTAGTCAAGTCCCTTTTGGAAAAACATGGTCTAGGGATGGCAGATATGACAGCGATTGAATGGAAC  
GAAGCTGTTGGCGTTATTGATGGTCTATTATTGAAACCCATTATCCAGATTATTGGAACCCCATATAATATATTGGTGGTGCATTAGCTTATGCGTCAT  
CGAATCGGTGCTCAGCAGCCATTATAATTATTCACCTTAATGAGGGCTTTAGAGATTAAGAAATAGGACGTATGGAATAGCTGTATAGCAGCAGCT  
GGTGGCCAAGGTTTGCTGTTTTACTAAAAATCATTAAGGAGTTTGTGATGCTGACAAAGCTAGAATATTGGGCAAGCAATGCCCAA

SEQ ID 182

MTDVYIAAGLRTPIGLVGKQFAKEQPEILGAKLINALQNKYPVPIDQVICGNTVGTGGNIGRLMTLYSHLGSVSALTVDMQCASAGAALSVGYAK  
IKAGMASNLLVGGISSSLQPESVYASADWRQGAYKVAQFSPDSISPFAMIEGAERVAREHGFTKEYLNHWTLRSHQKASVCQEALLADLILDLIS  
GASDQGIRPLRSKVLKVPPILEGHVISAAACLTHTDAAFLQLSSQPSAFKLIDVVEVAGDPQRSPLMVIKASQVLLKHLGLMADMTAIEWN  
EAFVIDGLFETHYPLDLDRYNIFFGGALAYGHPYGASAAIILHLMLRALEIKNGRYGIAAIAAAGGQGFVLLKYHKFESHADKARILGKAMPK

SEQ ID 183

ATGCTTGAATCATTGAAAAACGATAGTATAAAACCAATAGCGATAAAAAGTATTATTGATGGTGATTACAGGTCAGTTATGGAGAATTTTATAACCTTA  
GTAAGACAAGATATATGGCGTCACAAAGACAATAGGAAACATGTGATTAGCACACACTCTCTGCTTAACCAATTAGTAAGATTGTTTCAAAGTTATGT  
CAAAAAGCTCTTCCCTATTATTGTAAACCTAACCTTACTCATAATGAAATAAGTCGATTAGAAAAAGAAAGTCAGATATGCTCCTCAACTAGCTGAT  
TTTGGTGTTCTTTCTCTGGGATCTACAGCTAGTGTAAACTATTGTGGAGGAGCTTCACTTCGTGGTCTGATTTTTTAGCATTTAGAAATGCTTAT  
TTTTCGGTCACTTCCAATAGCAAACCTGTTTATTCAAGGTGATTTTCACTTTACGTGTAACCTAAATTTAGCGCTATCCCTTTTATTACTGGGGGGA  
ACACTTGTGTGCACAGAAAAATTCTGTAAATACTGGCAGACTTTATGGGAAAAAATCGGTGTAACGCATCTATATCTGCTCCCTAGTTATCTC  
AAGTTAGTGGAAACAATATAGCAAGGAGACTCGGTTAGACATAAAACTATATTACCTTCTCGCAATATGTCCTGTACTACTATCTGGAAGGTTTA  
TATAGAAAGCATCTCAAAGTCTCAGTGAATAACTTCTATGTGTCTAGTAGCTCAATTTGTGTCTCATGGTACGATGGTCTGTGATATCCGAGATTA  
CCACAGTATGTGGAGAAAATCGTTCAAATGTAGCTGTGTAGGATTAAAGAGGGAAGAAATTTTGTAAAAACACCGTATAGTATCTGTGGCCTTTCA  
AGTGAATATTGTGCTGGTGATTATGGTGAACGTATAGATGGCAAATATATCTATTGGCCGTGGTGGTGATTGGTGCAATCAATCGGGCATTAA  
CTCTATTACTCTAGATTAAATCGAAAAATAAAACATGCCCTTATATCAAGGATGCAGTAGCATTTACAAAAGAGAGAGTCAAAGTCATGGACAAGAG  
TCACATTGCTGTATTGTTTTAATTGAAATCAGATGCAACAAGAGTGTTTGAAGTGGTTATCGGAAACATTTGAAAGAAGATATGGGTTTAAGCAT  
TATCATATTGTATCTAAATTCCTTTGTGCATCTGTGCAAAATGATTATCAACAACCTAAAGAAGCAGTTAGCA

SEO ID 184

MLES LKTI VKTNSDKK LFDGDLQVSYGEFYNLVRQDMASQDN RKHVISTHSL LNLQ LVRVSKLCQKALPIICKPNLTHNEISRLEKEVQYAPQLAD  
 FGV LSSGTTADAKLLWRSFTSWSDFFSIQNA YFSVTSNSKLFIQGDFSFTGNLNLALS LLLLGGLVVTOKNSVKYWTOLWEKTGVTHLYLPSYL

KLVEQYSKETALDNKTIITSSQYVSDSLLEGLYRKHVPKSVKIFYGASELNYVSWYDGRDIRDKPQYVGEIVPNVAVRIKEGRIFVKTPYSICGLS  
SEYCAGDYGELIDGKLYLFGRGGDWCNQSGIKLYLPRLEIKICTPYIKDAVAFTKESQSHGQESHCCIVLIENQMQQECLKWLSEHFEEKYGFKH  
YHIVSKIPLMPSPGKIDYQQLKRQLA

## SEQ ID 185

ATGCTGACAAAGCTAGAATATTGGGCAAAGCAATGCCCAAATAAAAAAGCTATCGTAGCCGATCAGATAAGCTTGACTTATCAAGAGCTATGGCAA  
GCGGTTTTTAATAAAGGATCAGACAAATAAAGACAGTGTACCATATATCATCAGTCATAGTCGCTATCTTAATCAGTTACTCTCTTTTTTACGAGGA  
TTAAAGAAGGCAGTTGTCTCTATCATTTTTACACCTAATATCTCAGGTACATTTTACGAGCAAATAAAACACGTCGATGGTGAGCTTCTTAAAAA  
GCTGATTTTGTCTGTTTTGAGTTCGGGAACAACCTGGCAAAGCAAATTTATTTTGGCGTCGTCATCAACTTGGACGAGACTTTTTGATTATCAAAAT  
AAGGTGTTTGGTATGACTGGTAATAGTTGTCTATTCTTACATGGTAGTTTTAGTTTTACTGGCAATCTTAACCTTAGCATTAGCTCAACTATGGGCC  
GGGGGATGTCTGTTTTTAAGCCAAAAGCTGTCTTTGAAAACGTGGTTAAGCTTATGGCAAGCAAAAAAGGTGAGTCACCTTTACCTTTTACCGACC  
TACCTAAATCGCTTGCTACCTTATTTGACTAAGAACAACATGACTGCGACTCACTTATTGACCTCTTCGCAAAATGATATCACAGAATTACTAAGA  
CATATTATCAAAAAATTTCTCAGCTTGAAATTGTCAATTTCTACGGGCTAGTGAATTATCTTTTATAACGTGGTGAATGGCAGAGCTGCTGTC  
AAAATTAATGGTTTGGTAGGACAGCCCTTTCTCTGATGTGTCTATCAGTTTCAAGATAAGGAAATTTTGTAGAGACTCTCTTATAGTGTAGAAGGA  
ATGTCACAGCAATACAGTGTCTTTCAGACTTAGGAAAAATGAGCCAGCGGCTTTAATTTTAGAAGGGCGACAAGATGACTGGGTTAATCAACAGGGA  
GTGAAATGCCACCTGCTAGCCTAGTTGAACCTCGCTCACCAAGCGCCAAACGTCAAAGAAGCGCACGCTTTAAAGATAGGAAAAGGAGAAAACGAA  
ACCCTAATATTAGTATTAGTTTTGACTAAGAAGGATTGCTAGACCTATTAAAGACTTTTATAGCTCTTATTAAACTCTGGACAACCTCCCAAG  
TACTATCTTGTGATTGATTGTTTGCCTTTAAAAGATAATGGTAAAATTAATCGAGAAGTCTTTTAAATAAAATACCCAAACAGTGGCTTAGT

## SEQ ID 186

MLTKLEYWAKQCPNKAIVADQISLTYQELWQAVLIKDQTIKDSVPYIISHSRYLNLQLLSFLRGLKEGSCPIILHPNISGTFQOQIKHVDGELLKK  
ADFAVLSSGTTGKAKLFWRRLLSTWTRLFDYQNKVFGMTGNSCLFLHGSFSTGNLNLALALQWAGGCLVLSQKLSLKTWLSLWQAKKVSHLYLLPT  
YLNRLLPYLTKNNMTATHLLTSSQMISQELLRHYYKKFPQLEIYIFYGASELSFITWCNGRAAVKINGLVGQFPDVSISFKDKEIFVETPYSVBG  
MSQPYSVSDLGKMSFAGLILEGRQDDWVNQRGVKCHLPSLVELAHQAPNVKEAHLKIGKGENETLILVLVLTKKDCLAPIKDFLALYLSNGQLPK  
YYLVIDCLFLKDNKINREVLLNKIPKQWLS

## SEQ ID 187

ATGTTATCAAAAGCAAATACAGATATATTATCCGTGAGATTATTAAGTTATTTCCAGATGCTAAACCTAGCTTAGACTTTACTAATGTCTTTGAG  
CTTTTGGTAGCTGTAATGCTATCAGCTCAAACAACCTGATGCAGCTGTTAATAAGTTACACCCGCCCTTTTGAACGCTTTCCAAATCCTTTAGTT  
TTGGCACAGCTGATCCCAAGAGATTGAACCTATATTCTAAAATTTGGGCTTTACCGTAATAAAGCTCGATTCTTAAATCAATCGCTAAACAA  
TTGATAGAGCATTTTGTATGGAAGTCCCGGAACCTCGTCAAGAGCTAGAAAGTTTGGCTGGCGTTGGAAGGAAAACGGCTAACGTGGTCATGAGT  
GTTGGATTGGTATTCGCGCTTTTCCCGTAGATACTCATGTCACTCGGATTGTAAACACCACAGATTGCAAAACAGTCGGCTCTCCACTGGAA  
ATTGAGAAACGAGTCATGGAGGTTTACCACCAGAAGAGTGGCTAGCTGCACATCAATCCATGATTTATTTTGGTCGTGCAATTTGTCTATCTTAA  
AATCCAAATGCGACAGTACCCACAACCTTTATCACTTTCTTGATAATTTAAAG

## SEQ ID 188

MLS KAKSRYII REI IKLFPDAKPSLDFTNVFELLVAVMLSAQTDAAVNKVTPALFERFPNPLVLAQADPKEIEFYISKIGLYRNKARFLNQCAKQ  
LIEHFDGKVPRTQLESLAGVGRKTANVVMVSGFIPAFVTDVTHVTRICKHQICKQSASPLEIEKRVMEVLPPEEWLAAHQSMIYFGRACHPK  
NPKCDQYPQLYHFPDNLK

## SEQ ID 189

ATGAGAATTGGAAGCAAGATTAGCAAAAGTCTGACCATCATTGGTCAAATGTTTCTGAGGCTAAGGGAGAGTTAGACTGGGAAACACCTTTT  
CAATTGTTGATTGCGGTGATTTTATCAGCTCAAACGACAGATAAGGCCGTCAATAAGGTAACTCTGGACTATGGCAGTCTTATCCAGAAATAGAA  
GACTTAGCTTTTGTGAACTTTCTGATGTTGAAAATGCTCTGAGAACGATTGGACTCTATAAAAAAAGGCCAAAAATATCATTAAAACTGCTCAG  
GCTATTCTGATGATTTTAAAGGGTCAAGTGCCAAAAACCCAAAGAGCTTGAAAGTTTACCGGGTGTGGCCGAAAAACAGCCAATGTGGTGCTG  
GCAGAGGTTTATGGTGTCCAGCTATTGCGGTTGATACTCATGTGGCTAGAGTCTCAAAGAGGCTCAATATTTTCATCGCCAGATGCCGATGTCAAG  
CAGATTGAAGCAGATTGTATGGCTAAAAATCCAAAGAAAGATTGGATTATTACTACCATCGATTGATTTTTTTTGGACGCTACCATTGTTTAGCC  
AAAAAACCAAAATGTGAGATTGTCCCGTTTCACTCTTACTGCAAGTACTATCAAGATACTTATGGAATTCGAAAGCC

## SEQ ID 190

MRIGKARLAKVLTIIIGOMFPEAKGELDWETPFQLLIIVILSAQTTDKAVNKVTPGLWQSYPEIEDLAFELSDVENALRTIGLYKNKAKNIIKTAQ  
AIRDDFKGVPKTHKELESPLGVGRKTANVLAEVYGVPAIADVTHVARVSKRLNISSPDADVKQIEADLMAKIPKKDWIITHRLIFFGRYHCLA  
KKPKCEICPVQSYCKYYQDTYGKSKA

## SEQ ID 191

ATGAAAGTTTATTCGATGTGCAGAATCTTTTGAAAAAATTTGGTATTTATGTTTATATTGGTAAACGCTTTTATGATATCGAAGTTATGAAGATT  
GAATTGCAACGCTCTCTACGATAATGGTCTGATAAGTAGAGATGATTATTTAAAGCAGAACTGATTTTAAAGAGAGACAGACTAGAATTGGAG  
AAGGAAAAATAAAAAA

## SEQ ID 192

MKVLFDVQNLKKFGIYVYIGKRLYDIEVMKIELQRLYDNLISRDDYLKAEILRREHRLELEKENKK

## SEQ ID 193

TTGCTAAATCTACTTATATGAAAACTATATGATGTGCAACAATTGCTAAAAAATTTGGCATTTTGTGTTTACCTTGGCAACGCTCTTTATGAT  
ATTGAAATGATGAAGATTGAACCTCAGCGTCTCTATGATAGCGGCTTATTGGATAAGAGGGATTACTTAAATGCGGAGTTAATTTTGCAGCGTGAG  
CATAGATTAGAATTGGAAGAAAGGA

## SEQ ID 194

LLKSTYMKTLYDVQQLLNKFGIFVYLGRKLYDIEMMKIELQRLYDSGLLDKRDYLNALILRREHRLELEKEG

## SEQ ID 195

ATGAGTAAGAAATATTGGGAATTGACCTCGGAGGAACGACCATTAATTTGGTATCTTGACGCTTGAGGGAGAAGTACAAGAAAAATGGGCAATT  
GAGACCAATACTTTAGAAAAACGGAAGACATATCGTTTCTGATATCGTTGAATCTCTCAAAACATCGTTTGGAGCTCTATGGATTAAACAAAAGATGAC  
TTTCTCGGTATCGGTATGGGTTCTCCAGGAGCTGTTGATAGAACTAGTAAAAACAGTAACAGGTCGTTTAAATCTAAATTTGGGCTGATCTCAAGAA  
GTAGGTTTCACTTATTGAAAAAGAGTTGGAATTCATTTTTTATTGATAACGATGCTAATGTTGCAGCACTTGGTGAACGCTGGGTAGGTGCTGGT  
GCCAATAATCCGACGTTGTTTTGTAACCTCGGAACAGGAGTAGGTGGAGGTGTTATCGCAGATGGTAACCTCATCATGTTGTTGAGGAGCA  
GGTGGAGAAATTTGGGCATATGATTGTTGATCCAGAAAAATGGAATTTACGTGCACATGTGGTAACAAAGGCTGCCTTGAGACAGTTGCATCAGCGACA  
GGTGTGTTAGAGTAGATGAGCTCAACTCGCAGAACCAATATGAGGGTTCGCTGTCATTAAAGCAGCGATTGACAACGGTGATCTGTTACCAAGTAAA  
GATATTTTATAGCAGCAGAAGATGGGGATAAATTTGCTAATTTCTGTTGTTGAACGTGTATCACGTTACCTTGGACTGGCAGCAGCTAATATTTC  
AATATTTTAAACCTGATTCTGTGGTTATTGGTGGCGGTCTCAGCAGCAGGTGAATTTTACGTAGTCGCGTTGAGAAATACTTTGTACATTT  
GCTTTCCCAACAGTTAAAAAGTCAACTAAAATTAAGATTGCTGAACAGTAGGTAATGATGCTGGTATTATTGGTGCAGCAAGCTTAGCCAATCAACAA  
GCAAGT

## SEQ ID 196

MSKKLLGIDLGGTTIKFGILTLEGEVQEKWAIETNLTENGRHIVSDIVESLKHRLSLYGLTKDDFLGIGMGSPGAVDRSTKVTGAFNLNWDQTQE  
VGSVIEKEVGIPFIDNDANVAALGERWVGAGANNPDVVFVTLTGTVGGGVADGNLIHGAVAGAGEIGHMIVDPENGFTCTCGNKGCLLETVASAT



GVVRVARQLAEQYEGSSAIKAAIDNGD'TVTSKDI'FIAAEDGDKFANSVVERVSRYLGLAAANISNILNPDSVVIGGGVSAAGEFLRSRVEKYFVTF  
AFPQVKKSTKIKIAELGNDAGIIGAASLANQQAS

## SEQ ID 197

ATGAGTCAAAAATTACTGGGGATTGATTTAGGTGGTACCACCATTAATTTTGGAAATTTTAAACAGCAGCAGGAGAAAGTCCAAGAAAAATGGGCAATT  
GAGACTAATATTTTAGAAGGAGGCAACATATTGTCCTGATATCATCGCTTCCATCAAACATCGCTTAGACTTGTATGGTCTAAGCAGTGTCTGAC  
TTTGTGGGAATTGGTATGGGATCACCAGGAGCGGTGACCGTGATACATAACAGTTACTGGGGCATTCAACCTTAATTTGGAAAAGAAACCAAGAA  
GTCGGTTCCGTTGTTGAAAAAGAAATTGGGCATTCTTTTGGCCATTGACAATGATGCCAATGTGGCTGCCCTTGGTGAACGTTGGGTAGGTGCTGGT  
GAAAATAACCCAGATGTCGTCTTCATGACACTTGGAAACAGGTGTCGGTGGAGGCATTATTGCTGATGGTAACCTTGATTTCATGGTGTTCAGGAGCA  
GGTGGTGAAATCGGCACATGATTGTTGAGCCAGAAAATGGCTTGGCTTGACTTGTGGCTCACACGGCTGTTTGGAAACAGTAGCTTCAGCAACA  
GGAGTTGTCAAAGTGGCACGTTTACTGGCAGAAAGCCTACGAAGGGGATTTCAGCCATCAAAGCAGCTATTGACAATGGTGAAGGTGTTACCGAGTAAA  
GACATTTTCATGGCGGTGAAAGCAGGGGATTCTTTGCTGATTCTGTTGTGAAAAGGTTGGTTACTACCTTGGCCTTGCTTCAGCAAAATATTTCC  
AATATCTTGAATCCAGACTCAGTGGTTATCGGTGGGGGTGTGTGACGAGCAGGAGAAATTTCTACGCTCACGTATTGAAAAATACTTTGTGACCTTC  
ACTTTCCCAAGTGAAGTATTCACTAAAATTAAGATTGCAGAACTTGGCAATGATGCTGGAATTATCGGTGCAGCTAGCCTTGCTCGACAATTT  
ATCAAAAA

## SEQ ID 198

MSQKLLGIDLGGTTIKFGLTAAGEVQEKWAIETNILEGGKHIVPDI IASIKHRLDLYGLSSAD FVGIGMGSPGAVDRDNTNVTGAFNLNWKETQE  
VGSVVEKELGIPFAIDNDANVAALGERVWVGAGENNPVFM LTGTGVGGGIIADGNLIHG VAGAGGEIGHMIVEPENGFAC TCGSHGCL ETVASAT  
GVVVARILLAEAYEGDSAIIKAAIDN GEGVTSKDI FMAAEGADSFADSVVEKVGYYLGLASANISNILNPDSVVIGGGVSAAGEFLRSRIEKYFVTF  
TFPQVRYSTKIKIAELGNDAGIIGAASLARQFITK

## SEQ ID 199

ATGGATATGCTGTTATTTTAATTATTGTTATCTTCTGGCTTTTGTGCTTGGGCATCTTGGAAATTATTGGAGGGTTCGTAGGGCAGCTAAATTT  
TTAGATAACGAGTCTTTTCAAAGAAGATGTGACGAGGACAGTTAATGATATCCGAGAAGCTGGTGCTTTTCATAGAAAGCATATTTCTCGGAGCA  
CGTAACATTCCAGCAAGTCAATTTAAAGTTGCTTATCGGCTTTGCGCAAGATAAACTGTCCTCTTATATGACGCAAGCCGTGGTCACTCTATT  
CCAAGGATTGTTTTGTTACTCAGAAAAGAAGGTTTTAATCACTTTACGTGTTAAAGGACGGTTTTCAATTACTGGACGGGTAGAGTTAAG

## SEQ ID 200

MDMSVILIIVILLAFVAWASWNYWVRRAAKFLDNESFQKEMSRGQLIDIREAGAFHRKHILGARNIPASQFKVALSALRKDKPVLVLYDASRGQSI  
PRIVLLLRKEGFNQLYVLKDGFNWYWTGRVK

## SEQ ID 201

ATGCTCTCCAATCACACTTATCTTATGGTTACTTCTTGTGCGCATTTGTTGGTTATTATACATGGAAC TATTTCTCTTTTCGAAAAATGGCAAAGCAG  
GTTGATAACGAGACTTTTAAAGACGTGATGCGTCAAGGTCAATTGATTGATTACGAGAGCCAGCGGCTTTTAGAAC TAAGCATATTTTAGGAGCT  
CGAAATTTTCCAGCGCAACAATTTGATGCTGCTATTAAGGGACTACGCAAGGACAAACCTGTTCTTATTTACGAAAAATATGCGTCCCCAGTACCGT  
GTGCCTGCGGTCAAAAAACTTAAAAAAGCTGGCTTTGAAGACGTTTATGCTCTTAAAGACGCTATTGATTATTGGGATGGCAAAGTTAAACAAACA  
ACC

## SEQ ID 202

MSPITLILWLLLVIGVYTWNYFSFRKMAKQVDNETFKDVMRQQLIDLREPAAFRTKHILGARNFPAQQFDAAIKGLRKDKPVLIIYENMRPQYR  
VPAVKLLKAGFEDVYVLKDGIDYWDGKVKQTT

## SEQ ID 203

ATGACAAATTTAAGAACAGATATCCGTAAAGTTCGATCATTGCCACGTTGACCACGGTAAACAACTCTCGTTGATGAATTATTTAAACAATCA  
CATACTCTTGATGAGCGTAAAGAGCTTGAAGAACGTGCAATGGATTCAATGATATCGAAAAAGAACGTGGTATCACCATTCTTGCAAAAAATACA  
GCCGTAGCATACAACAGTGTTCGTATCAATATTAGGACACACCTGGTCAAGCGGACTTTGGTGGTGAAGTTGAGCGGTATTATGAAAAATGGTTGAT  
GGTGTGTTTTAGTTCGTGATGCCCTACGAAGGAACAATGCCAACCAACGTTTGTGTTTGAAGAAAGCTCTTGAACAAACCTTAAATTTCCAATCGTT  
GTTGTAAATAAAATTGATAAGCCGTCAGCTCGTCCATCAGAGGTTGTTGATGAAGTTCTTGAAC TATTTATTGAGCTCGGTGCTGATGATGATCAA  
CTAGATTTCCCTGTTGTTTATGCTTCAGCTATCAATGGAACATCTTCAATGTGAGATGATCCTTCAGATCAGAAAAAACAAATGGCACCGATTTTT  
GATACTATCATTGATCAGATTCCAGCCCCAGTTGACAACTCGGAAGAACCACTTCAATTTCCAAGTTTCTCTTCTTGATTACAATGATTTTGTAGGA  
CGTATTGGTATTGGACGTGTTTTCCGCGGGAAGTGTCAAAGTTGGAGATCAAGTTACTCTTTTCAAACCTTGATGGTACAACTTAAAACTTCCGCGTA  
ACAAACTTTTTGGTTTCTTTGGACTTGAACGTAAAGAAATCCAAGAGGCTAAAGCGGGTGATTTAATCGCTGTTTCTGTTATGGAAGATATCTTC  
GTTGGTGAGACAGTAACCTCCGACAGATGCTATTGAACCACTACCAGTTTTACGTATTGACAGGCCAACACTTCAAATGACTTTCTTGGTGAATAAT  
TCACCAATTTCGAGGTGCGCAAGGTAATGGATTACGTACGTAAGGTTGAAGAACGCTCTTTTAGCAGAATTACAAACAGACGTTTCTTTACGTGTT  
GACCCACAGATTTCGCCAGATAAATGGACGGTTTCAGGGCGTGGAGAATTACATTTATCTATCCTTATTGAAAACAAATGCGCTCGTGAGGGATATGAA  
CTTCAAGTATCAGCTCCAGAAGTTATCATCAAAGAAATTGATGGTGTTCATGCGAGCCGTTTGAGCGTGTTCAAATTGATACTCCAGAAGAATAT  
CAGGGTGCTATTATCCAAAGTTTGTGAGAGCGTAAAGGTGATATGCTTGATATGAGATGTTGGTAATGTGCAACGCGTTTGATTCTTCTTGATT  
CCTGACGCTGGTTGATTGGTTATTCACAGAGTTCTTTCAATGACACGTTGATATGTTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT  
GTTCAAGGAGAAATTTGGTGGTGTGCTATCGTGGTGGCTTGGTTCTATTTGAAAATGATGATAAGCAACTACATATTCAATTTGATGCTATTGAGAACCT  
GGGACTATCTTTGTAATCCAGGTATAGAAGTTTATGAAGGAATGATGTTGGTGAGAATTTCTCGTGATAATGACCTCGGAGTCAATATTACAACCT  
GCTAAACAAATGACAAATGTCCGTTGAGCAACTAAAGATCAAAGTGCAGTATCAAGACGCTCGTATCTTACTTTAGAAAGAGTCACTTGAATTT  
TTAGCAGAT  
AAAAATCAGCTGAA

## SEQ ID 204

MTNLRD'IRNVAI IAHVDHGKTTLVDELLKQSH'TLDERKELEERAMDSNDIEKERGITILAKNTAVAYNDVRINIMDTPGHADFGGEEVERIMKMVD  
GVVLVVDAYEGTMPQTRFVLKKALEQNLIPVVVNKIDKPSARPSVVDVLELFI'ELGADDDQLDFPVVYASAINGTSSMSDDPSDQEKTMAPIF  
DTIIDHIPAPVDNSEBPLQFQVSLLDYND'FVGRIGIFDVFRGTGVKGQV'ELSKLDGTTKNFRVTKLFGFFGLERKEIQEAKAGDLIAVSGMEDI  
VGETVTP'TDAIEPLPVLRI'DEPTLQMTFFLVNNSP'FAGREGKIWTSR'KVEVRL'LAELQ'VLSLRVDPDTS'DPKWTFVSGR'GELHLSILIE'TMRREGYE  
LQVSRPEV'IIKEIDG'VQCEP'FERVQIDTPEYQGAIIQSLSERKGDMLDMQMVNGQTRLIFLIPARGLIGYSTEFLSMTRGYGIMNHTFDQYLPV  
VQGEIGGRHRGALVSIENGKATTYSIMRIEERGTFIVNPGIEVYEGMIVGENSRDNDLGVNITTAQOMTNVRSATKDQTA'VIKTPRILITL'EESLEF  
LADDEYMEVTPESIRLRKQILNKAARDKANKKKKSAE

## SEQ ID 205

ATGACTAACTTAAGAAACGATATCCGTAAAGTTCGATCATTGCCACGTTGACCACGGAAAAACAACACTTGTAGATGAATTATTTAAACAATCC  
CATACTCTTGATGAGCGTAAAGAGCTTCAAGAGCGTGCCATGGATTCCAATGACCTTGAAAAAGAACGTGGGATTACAATCCTTGGCAAAAATACG  
GCAGTAGCCTATAACGATGTTTCGTATTAACATCATGGATACCCAGGACACGCGGACTTCGGTGGTGAAGTTGAACGTATCATGAAAATGGTTGAC  
GGGGTTGTTCTTGTGTTGGATGCCTACGAAGGAACAATGCCACAGCGGTTTCGTATTGAAAAAGCACTTGAGCAAAACCTTATCCCGATCGTT  
GTGGTGAACAAGATTGACAAACCTTCAGCTCGTCCAGCAGAAGTTGTAGATGAAGTGCTTGAATTATTCATCGAACTTGGTGCCGATGATGAGCAA  
TTGGAATTCCAGTTGTTTACGCATCAGCTATTAATGGAACATCATCATTATCAGATGACCTGCTGACCAAGAGCATACTATGGCACCGATCTTT  
GATACGATATTGATCATATTCCAGCGCCAGTTGATAATTGATGAGCCTTTTGCAATTTCAAGTGTCACTTTTGGACTCAACGATTTTCGTAGGT  
CGTATCGGTATCGTGTCTGTTTCCGTGGTACTGTTAAAGTGGGTGACCAAGTCACTTTTCAAACTTGATGGTACCCTAAAACTTCCGTGTT  
ACAAACTGTTTGGTTTCTTCCGTTTGAACGCTCGTGAAATTCAGAAGCTAAAGCAGGTGACTTGATTGCTGTTTCAGGATGGAAGATATCTTT

GTGTGGAGAAACCATTTACACCAACTGACTGTGTGGAAGCTCTGCCAATTTCTTCGTATTGATGAGCCAACACTTCAGATGACTTTCTTGGTCAATAAC  
TCTCCTTTTCGAGGTCTGTGAAGGTAAATGGATCACGTACAGTTAAGGTTGAAGAAGCTCTTTTAGCAGAATTGCAAAACAGACGTGTCACTTCGTGTT  
GACCCAAACAGATTCGCCAGATAAATGGACCGTTTTCAGGGCTGGGAGAAATTGCATTTATCTATCCTCATTGAAACCATGCGCGGTGAAGGCTATGAA  
CTTCAAGTATCACGTCCAGAAGTTATCATCAAGAAATGTATGGTGTCAAAATGGAACGGTTTGGAGCTGTTCAAATTGATACACAGAAGAAATAT  
CAGGGTGCAATCATTCAGTCTCTTTTCAGAACGTAAAGGGGATATGCTTGATATGCAGATGGTGTGGTAATGGTCAAACCGCTTTGATTTTCTGTGAT  
CCTGCACGTGGTTTGATTGGTTATTCAACAGAGTTTCTTTCAATGACACGTGGATATGGTATCATGAATCATACTTTTGATCAGTATCTACCGGTT  
GTTCAAGGAGAAATCGGTGGCCGTCATCGTGGTGCCTTGGTTCTATTGAAAATGGGAAAGCAACGACATATTCAATCATGCGTATTGAAGAACGT  
GGAATCATCTTTGTCAATCCAGGTACAGAAGTTTACGAAGGGATGATTGTTGGTGAAAACCTCACGTGATAACGACCTTGGTGTTAAACATTACAACA  
GCTAAGCAAATGACAAATGTCCGTTTCAGCGACTAAAGATCAAACCTGCAGTTATCAAGACGCCTCGTATCCTAACGCTTGAAGAATCATTAGAGTTCT  
TGAATTGATGCAGAAATACATGTGAAGTAACGCCAGAATCTATCCGTTGCGTTAAACAAATCTTGAATAAAGCTGCGCGTGATAAAGCTAATAAAAG  
AAAAAATCAGCCGAA

SEQ ID 206

MTNLRLNDYRGNVAI IAHVDHGGKTTTDELDLKQSHTLDERKELQBRAMDSNDLEBKERGITILAKNTAVAYNDVVRASINIMDTPGHADFGGVEVERIMKMVD  
GVVLVVDAYEGVMPQTRFLVKLKALEQNLIPIVVNKIDKPSARPAEVDVLELFLIELGADQLEFPVVYASAINGTSSLSDDPADQEHTMAPFI  
TLDIHIPAPVDGSDDEPLQFQVSLLDYNDVFGRIIGRIVFRGTVKVGDQVTLKSLDQTKNFRVTKLFGFFGLGRREITQEAKAGDILAVSGMEDIF  
VGETITPTDCVEALPILRLIDEPTLQMTFLVNNSPFFAGREGKWITSRKVEERLLAEQLQTDVSLRVDPTDSPDKWTVSGRGELHLSILIIETMRREGYE  
LQVSRPEVI I KEIDGVKCBPFERVIDTPPEYQGAITQSLSRKGBMDLDMQMVNGQTRLIFLIPARGLIGYSTEFLSMTRGVGIMNHTFDQYLPV  
VQGEIGGRHRGALPESIEGKATITSIMRIEERGTFIVNPGTEVYEGMIVGNSRDNLDGVNITTAKQMTNVRSATKDQTAVIKTPRILITLESLEF  
LNDDEYMEVTPTSIRLRKQILNKAAKDANKKKKSAE

SEQ ID 207

ATGGGACGAGTAAATGAAAA CAATAACAACATTTTGAAAAATAAAAAAGTTTTAGTCCTTGGTTTAGCACGATCTGGAGAAGCTGCTGCACGTTTGTTA  
GCTAAGTTTAGGAGCAATAGTAGTGCAGTTTAATGATGGGCAACCATTTGATGAAAAATCAACACGACAGCTTTTGGTTGGAAGAGGGTATAAAGCTGGTT  
TGTGGTAGCTATCCTTTTGAAGATTTTAGATGAGGATTTTTTGTTACTGATTAATAAAATCAGGAATACCTTATAACAACCTTATGGTCAAAAAGCA  
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ACAACGACACAGATGATTGCGAGAAGCTTTAAATGCTGGAGGTCAGAGAGGTTTGTAGCTGGGAATATCGGCTTTCTCTGCTAGTGAAGTTGTTTCTAG  
TTCTGCGAATGATAAAGACTCTAGTTTATGGAATTTCAAGTTTTCAGCTAATGGGAGTTAAGGAATTTTCGCTCTATTTGACAGTAATTAATCAAT  
GTAATGCCAACTCATTTAGATTATCATGGGCTTTTGAAGATTATGTTGCTGCAAAATGGAATTCAAAATAAATCAAGTGTCTTCACTGATTTTGTG  
GTACTTAAATTTTAATCAAGGTATTTCTAAAGAGTTAGCTAAAACTACTAAAGCAACAATCGTTCCTTTCTCTACTACGGAATAAGTTGATGGTGTCT  
TACGTAACAAGACAGCACTTTTCTATAAAGGGGAGAAATATTATGCTAGTAGATGACATTTGGTGTCCAGGAAGCCATACAGTGAAGAACTGCTCTA  
GCAACTATTGCGGTTCTAAACTGGCTGGTATCAGTAATCAAGTTTATTAGAGAATCTTTAAGCAATTTTGGAGGTGTTAAACACAGCGCTTGCAATCA  
CTCGTAAGGTTTCATGGTATTAGTTTCTATAACGACAGCAAGCTCAACTAATATATTGGCAACTCAAAAAGCAATATCTGGCTTTTGATAATCAATAA  
GTTATCCTAATTGACAGGAGGTCTTGATCGCGGTAATGAGTTTGTATGAATTGATACCGATATCACTGGACTTAAACATATGGTTGTTTTAGGGGAA  
TCGGCATCTCGAGTAAACCGTGTGCACAAAAAGCAGGAGTAACCTATAGCGATGTCTTAGATGTTAGAGATGCGGTGATAAAGCTTATGAGGTT  
GCACAAACAGGCGGATGTTATCTTGCTAAGTCTCTGCAAAATGCATCATGGGACATGCTATAAGAATTTTCAAGTCCGTGGTATGAATTCATGATCT  
TTCGAAAGTCTTAGAGGAGAG

SEQ ID 208

MGRVMKTIITTFENKKVLVLGLARSGEAAARLLAKLGAIVTVNDGKPFDENPTAQSLLLEGIKVVCGSHPLELLELLEDFCYMIKNPGIYPNNPMVKKA  
LEKQIPVLTEVELAYLVSSQLIGITGSGNGKTTTTTMTAEVLNAGGQGRGLLAGNIGFPASEVVGQAANDKDTLVMLSSFFQLMGVKEFRPHIAVITN  
LMPHTDLHYGHSFEDYVAAKWNINQIMSSSDFLVNLFNGQISKEKALTKTATIVPFSTKTEVDGAVQDQKQLFYKGENIMSVDDIGVPGSHNVENAL  
ATIAYAKLAGISNQVIRETLNSFGGVKHLRQLSGKVGHISFYNDKSTNINLATQKSLSGFDNTKVILIAGGLDRGNEFDELIPDITGLKHMVVLGE  
SASRVKRAAQAGVTYSDALDVRDAVHKAYEVAQQGDVILLSPANASWDMYKNFEVRGDEFDITFESLAGE

SEQ ID 209

ATGAAAGTGATAAGTAATTTTCAAACCAAAAAATATTAATATTGGGGTTAGCCAAATCGGGCGAAGCAGCAGCAAAATTATTGACCAAACTTGGT  
GCTTTAGTGACTGTTAATGATAGTAAGAACCATTTGACCAAAAATCCAGCGGCCACAAGCCTTGTTGGGAAGAGGGGATTAAAGCTCATTTTGGGTAGCCAC  
CCAGTAGAATATTAGATGAGAACTTTGAGTACATGGTTAAAAACCTGGGATTCCTTATGATAATCCTATGGTTATGAACCGCCCTTGCAGGAAGAA  
ATTCCCATCTTGACTGAAGTAGAATTGGCTATTTCGTATTCTGAAGCGCCTATTATCGGGATTACAGGATCAACCGGAAGACAACCAACAGCACA  
ATGATTGCCGATGTTTTGAATGCTGGCGGGCAATCTGCACTCTTATCTGGAACCATTTGGTTATCCTGCTTCAAAAGTTGTTCAAAAAGCAATTGCT  
GGTGATACCTTTGGGTGATGGAATTTGCTCTTTTCAATTAGTGGGAGTGAATGCTTTTCGCCCTCATATTGCTGTCATCACTAATTTAATGCCGACAT  
CACTGGACATCATCGGCAGTTTTGAGGATTATGTTGCTGCTAAATGGATGATTCAAGCTCAGATGACAGAATCAGACTACCTTATTTTAAATGCT  
AATCAAGAGATTTTCAAGCACTCTGCTAAGACCAACCAAGCAACAGTGATTCCTTTTCAACTCAAAAAGTGTTTGATGGAGCTTATCTGAAGGAT  
GGAATACTCTTATTTAAAGAACAGGCGAATTATAGCTGCAACTGACTTAGGTGTCCTCCAGGTAGCCACAACATTGAAAATGCCCTAGCAACTATTGCA  
TGTTGCCAAGTTATCTGGTATTGCTGATGATATTTATGCTGCCAGTGCCTTTCACATTTGGAGGCGTTAAACATCGTTTGCAACGGGTTGGTCAAAT  
AAGATGATTAACCTTCTACATAGCAGTAGTCAACCAATATTTTAGCCACTCAAAAAGCTTTATCAGGTTTGATAACAGCTCGTTGATTGTTGATT  
GCTGGCGGTCTAGATCGTGGCAATGAATTTGACGATTTGGTGCCAGACCTTTTAGGACTTAAGCAGATGATTATTTTGGGAGAAATCCGCAAGAGCGT  
ATGAAGCGAGCTGCTAACAAAGCAGAGGTCCTTATCTTGAAGCTAGAAAATGTGGCAGAAGCAACAGAGCTTGCTTTAAGCTGGCCCCAACAGGC  
GATACATCTTGCTTAGCCAGCCAATGCTAGCTGGGATATGTATCCTAATTTTGAAGTTCTGTTGGGATGAATTTTGGCAACCTTTGATTGTTTA  
AGAGGAGATGCC

SEQ ID 210

MKVISN FQNK KIL ILGLAKSGEAAAKLLTKL GALVTVND SKPFDQN PAAQALLBEGIKVICG SHPVELLDENFEY MVKNPGIPYDNP MVKRALAKE  
 IPILTEVELAYFVSEAPIIGITSGNGKTTTTMIADVLNAGGQSALLSGNIGYPASKVVQKAIAGDTLVMELSSFQLVGVNAFRPHIAVITNLMPT  
 HLDYHGSFEDYVAAKWKMIQAOMTESDYILINANQEISATLAKTTKATVIPSTQKVVDGAYLKDGI LYPKEQAI IAA TDLGVPGSHNIENALATIA  
 VAKLSGIADDIIAQLCSHFQGVKHLR LVQVGIKDITFYSNDKSTN ILATQKALSGFDNSRLILAGGLDRGNEFDDLVPDLLGLKQMIILGESAE  
 MKRAANAEVSYL EARNVAEATLAFKLAOTGDTILLSPANASWDMPNPFVGRDEFLATFDLCRGD

SEO ID 211

ATGGGGAAAAAATTTGTTTTACAGGTGGTGGTACGGTAGGTCATGTAACTAAACCTAATATTAATCCCCAAATTTATCAAAGATGGTTGGGAA  
GTACATTATATTTGGTGATAAAAAATGGCATGAACAATAATCAGTCTGGAATCGATATCACATTTTCACTCTATAGCTACTGGGAAACTA  
CGTCGCTATTTTTCATGGCAAAAATATGTTAGATGCTTTTAAAGTAGGGGTGGCGCTTCTTCAATCGATTGCTATTTATGCTAAACTAGACCCCAA  
GCCTTATTTTCAAAGGGGGATTTGTTTTAGTACCTCTGTAGTAGCTGCAGCGCTTTAAAGTTTCTGTTTTTGTTCATGAATCAGATTTATCA  
ATGGGGTTAGCAAATAAGATTTGCTTATAAAATTTGCGACTATTATGTATACGACTTTTGAACAATCTAAAGATTTAATCAAACCTAAGCATATTGGT  
GCTGTAAACAAAGTCAATGATTTGTAAGTTCGTTGAAAAATCTAGCATTAAGTAGTATAAAGAGCCTTCGATCCAAACCTAAAGACCTTTACTA  
TTTTTGGGAGGATCAGCAGGTGCAAAAGTATTCATGATTTTATTACTCAAACCTGAGCTGGAAGAAAAATATAATGTTTATCAATATTTTCAGGC  
GATTCCTCTCAATCGATTGAAGAAAGAACCTTTATCGCTGGATTATGTTACAGACCTTTTATCAGCCTTTAATGAAATTTAGCAGATGTGGTGT  
ACACGAGGTGGCTCTAATACTATTTTTGAATTAGTAGCTATGAAAAAATTCATCTTATTATCCCTCTTGGACGTGAAGCGAGCCGAGGTGACCAA  
TTAGAGAATGCTGCTTATTTGAAGAAAAGGGCTACGATTGCAGTTACCAGAATCTGAATTAACATAAATACACTTGAGAAAAGATATAATTTA  
TTAATTTCTAAACAGTGAGATTACGAAAAAATGTCACAATCATCTGAAATAAAATCTCAAGATGAATTTTATCAATTATTAATGTGATATG  
GCAAAAGTACAAAGGA

## SEQ ID 212

MGKKIVFTGGGTGVHVTNLNLIIPKFIKDGWEVHYIGDKNGIEHEQINQSGLDITFHSHIATGKLRRYFSWQNMLDVFKVGVGLQSI IAI IAKLRPQ  
ALFSKGGFVSVPVVAARLLKVPVVFHESDLSMGLANKIAYKFATIMYTTFEQSKDLIKTKHIGAVTKVMDCKKSFENTDLTSIKEAFDPNLKTL  
FIGGSAGAKVFNDFITQTPLEEKYNVINISGSSLNRLKKNLYRVYDVTLDYQPLMNLADVVVTRGGSNTIFELVAMKHLHLIPLGREASRGDQ  
LENAAYFEKGYALQLPESELNINTLEKQINLLISNSESEYKNNMSQSSEIKSQDEFYQLLIDDMAKVTKG

## SEQ ID 213

TTGTTTAAAGAGGAGATGCCTAATGCCTAAGAAGATTTTATTACAGGTGGTGGAACTGTAGGTGATGTACCTTGAACCTCATTTCTATACCAAAA  
TTTATCAAGGACGGTTGGGAAGTACATTATATTGGTGATAAAAATGGCATTGAACATACAGAAATTGAAAAGTCAGGCCTTGACGTGACCTTTTCAT  
GCTATCGCGCAGGCAAGCTTAGACGCTATTTTTCATGGCAAAAATCAGCTGATGTTTTTAAGGTGCACTTGGCCTCTCATGCTCTCTCTTTATT  
GTTGCCAAGCTTCGCCCTCAAGCCCTTTTTCCAAAGGTGGTTTTGTCTCAGTACCGCCAGTTGTGGCTGCTAAATTGCTTGGTAAACCAGTCTTT  
ATTCATGAATCAGATCGGTCAATGGGACTAGCAAAACAGATTGGCTACAAATTGCAACTACCATGTATACCCTTTTGAGCAGGAAGACCAGTTG  
TCTAAAGTTAAACACCTTGGAGCGGTGACAAAGTTTTCAAAGATGCCAACCAATGCCTGAATCAACTCAGTTAGAGGCGGTGAAAGAGTATTTT  
AGTAGAGACCTAAAAACCCCTCTTGTATTGTTGGTTCGGCAGGGGCGCATGTGTTTAAATCAGTTTATTAGTGATCATCCAGAATTGAAGCAACGT  
TATAATATCATCAATATTACAGGAGACCTCACCTTAATGAATTGAGTTCTCATCTGTATCGAGTAGATTATGTTACCGATCTCTACCAACCTTTG  
ATGGCGATGGCTGACCTTGTAGTGACAAGAGGGGGCTCTAATACACTTTTGGAGCTACTGGCAATGGCTAAGCTACACCTCATGTTCTCTTGGT  
AAAGAAGCTAGCCGTGGCGATCAGTTAGAAAATGCCACTTATTTTGAGAAGAGGGGCTACGCTAAACAATTACAGGAACCTGATTTAACTTTGCAT  
AATTTTGATCAGGCAATGGCTGATTTGTAACATCAGGTGATTAGGGCTACTATGTTGGCAACTAAGGAGATTAGTACACCGGACTTCTTT  
TATGACCTTTTGAGAGCTGATATTAGCTCCGCGATTAAGGAGAAG

## SEQ ID 214

LFKRRCLMPKKILFTGGGTGVHVTNLNLIIPKFIKDGWEVHYIGDKNGIEHEIEKSGLDVTFHAIATGKLRRYFSWQNMLDVFKVALGLLQSLFI  
VAKLRPQALFSKGGFVSVPVVAARLLKVPVFIHESDRMGLANKIAYKFATIMYTTFEQEDQLSKVKHLGAVTKVFKDANQMPSTQLEAVKEYF  
SRDLKTLFIIGGSAGAHVFNQFISDHPELKQRYNIINITGDPHNLNLSHLYRVYDVTLDYQPLMAMADLVVTRGGSNTIFELLAMAKHLHLIPLG  
KEASRGDQLENATYFEKRGYAKQLQEPDLTLHNFQDAMADLFHQADYEATMLATKEIQSPDFYDILLRADISSAIKEK

## SEQ ID 215

ATGCCTAAGAAGAAATCAGATACCCAGAAAAAGAAAGTGTCTTAACGGAATGGCAAAAGCGTAACCTTGAATTTTTAAAAAAGCGAAAGAA  
GATGAAGAAAGAACAAAAACGTATTAAACGAAAAATACGCTTAGATAAAAAGAAAGTAAATTAATATTTCTCTCTGAAGAACCTCAAAATACTACT  
AAAATTAAGAAGCTTCATTTTCCAAAGATTTCAGACCTAAGATTGAAAAGAAACAGAAAAAAGAAAAATAGTCAACAGCTTAGCCAAAACTAAT  
CGCATTAGAACTGCACCTATATTGTAGTAGCATTCTTAGTCATTTTAGTTTTCGTTTCTCTACTAATCCTTTTAGTAGCAAAAAACAATAACA  
GTTAGTGGAAATCAGCATACCTTGATGATATTGATAGAGAAAAAGCAATATCAAAAAACGATTAATTTCTTTCTTTAATTTTAAACATATAA  
GCTATTGAACAACGTTTATAGCTGCAGAAGATGTATGGGTAAAAACAGCTCAGATGACTTATCAATTTCCCAATAAGTTTTCATATTCAAGTTCAAGAA  
AATAAGATTATTGCATATGCACATACAAAGCAAGGATATCAACTGTCTTGGAAAACTGGAAAAAAGGCTGATCCTGTAAATAGTTTCAAGAGCTACCA  
AAGCACTTCTTAACAATTAACCTTGATAAGGAAGATAGTATTAAAGCTATTAATTAAGATTAAAGGCTTTAGACCCTGATTTAATAAGTGAGATT  
CAGGTGATAAGTTTAGCTGATTCTAAAAACGACACCTGACCTCCTGCTGTAGATATGCACGATGGAAATAGTATTAGAATACCATATCTAAATTT  
AAGAAGACTTCTCTTTTCAAAACAAATTAAGAAGAACTTAAGGAACCTTCTATTGTTGATATGGAAGTGGGAGTTTACACAAACAATAATACC  
ATTGAATCAACCCCTGTTTAAAGCAGAAAGATACAAAAATAAATCAACTGATTAACAAACACAAACACAAATGGTTCAGGTTCCGGAATAATAGTCAAGGA  
CAACAAATAACTCAAATACTAATCAACAAGGACAAACAGATAGCAACAGAGCAGGCACCTAACCTCAAATGTATAAT

## SEQ ID 216

MPKKKSDTPEKEEVVLTEWQKRNLEFLKKRKEDEEEQKRINEKRLDKSKLNISSPEEPQNTTKIKKLHFPKISRPKIEKKQKKEKIVNSLAKTN  
RIRTAPIFVFAVLVILVSVFLTLTFFSKQKTIITVSGNQHTPDDILIEKTNIQKNDYFFSLIFKHKAIQRLAEDVWVKTAQMITYQFPNKFHIIQVQE  
NKIIAYAHTKQGYQPVLEGTGKKADPVNSSELPKHFLTINLDEKDSIKLLIKDLKALDPLISEIQVISLADSKTTPDLLLLDMHDGNSIRIPLSKF  
KERLPFYKQIKKNLKEPSIVDMEVGYYTTNTTIESTPVKAEDTKNKSDDTKTQTNQNGQVAENSQGTNNNTNQQGQIATEQAPNPQNVN

## SEQ ID 217

ATGGCAAAAGATAAAGAGAAACAAAGTGATGACAAGCTCGTTTTGACAGAGTGGCAAAAGCGTAACATTGAATTTTTAAAGAAAAAGAGCAGCAA  
GCTGAGGAAGAAAAAACTCAAGAGAAATATTGAGTGATAAAAAAGCGCAGCAGCAAGCTCAAAATGCTTCTGAAGCGGTGGAGCTTAAACT  
GATGAGAAACTGATAGTCAGGAAATTGAGTCAGAAACGACGCTCAAAACCTAAAAAACCAAAAAGTTAGACAACCCAGGAAAAAGCGCGACA  
CAAATCGCTTTTCAAAAATCCTTGCCCTGTTCTTTTGGGGGCGCTCTTACTCATGGCGGTGCTATTTTTATGATCACTCCTTATAGCAAAAAAGAAA  
GAGTTTTCTGTAAGAGGAAACCATCAACGAACCTTGACGAATTAATCAAAGCTGCAAAAGTCAAAGCATCTGACTATTGGTTAAACGCTGTTAACT  
TCGCTTGGTCAGTATGAAACGACGATTCTTCGTACTATTCCATGGGTGAAATCTGTACATCTCTCTTACCAATTTCTTAATCTTTCTTTAACT  
GTTATTGAATTTGAAATCATCGCTTATGCACAAGTTGAAAACGGTTTTTCAGCCTATTTTGGAGAATGGAAAACGTGTGGACAAGGTCAGGGCATCA  
GAACCTACCGAAATCTTTCTTGATTCTTAATTTAAAGATGAGAAAGCGATCCAACAGTTAGTTAAGCAATTAACGACATTACCTAAAAAATTAGTC  
AAGAATATCAAGTCAGTGTCTCTTGCAAAATTCAAAACGACGAGCGGATTACTACTTATTGAAATGCATGACGGTAATGTAGTTAGATACCCGAC  
TCACAATCAACCTGTTTAAAGCAGAAATTCAAAATTCAAAACCTTGAATAATGATAGTATAGTGAATTTGAAATGGGAAATTTATACATACA  
ACACAGGAGATTGAAATCAACCTGAAGTTCCTCTTACGCTGAAACAAACGAGCTGATAAAGAAGGAGATAAGCCTGGTGAACATCAGGAACAG  
ACAGACAATGATTGAGAAACGCCAGCAATCAGAGTAGTCTCAGCAAAACACCACCATCCCCAGAAACGGTCTCAGAACAGGCCCATGGC

## SEQ ID 218

MAKDKEKQSDDKLVLTWQKRNIEFLKKKKQQAEEKKLKEKLLSDKKAQQQAQNAASEAVELKTDEKTDSEIERSETTSKPKKTKKVRQPKESAT  
QIAFQKSLPVLGALLLMAVSI FMITPYSKKKEFSVRGNHQTNLDELIKASKVKASDYWLTLTSPGQYERPIRLTIIPVKS VHLSYQFPNHFLEN  
VIEFEIIAYAQVENGFQPILENGKRVKVRASELPKSFILNLNDEKAIQQLVKQLTTLPEKKLVKNIKSVSLANSKTTADLLLIEMHDGNVVRVPQ  
SQLTLKLPYYQKLLKNLENDISIVDMEVGYYTTTQEIENQPEVPLTPEQNAADKBDKPGHQEQTDNDSETPANQSSPQQTTPSPETVLEQAHG

## SEQ ID 219

ATGGCTAGAAATGGCTTTTTTACTGGTTTGGATATAGGAACAAGCTCGATTAAAGTTTTAGTTGCAGAATTTATTGCAAAATGAAATGAATGTAATT  
GGGGTTAGCAACGTCCCTAGTTCGGGTGTAAGATGGTATAATTATTGATATTGAGGCAGCAGCAACTGCAATCAAGAGAGCGGTAAAAACAGCT  
GAGGAGAAAGCAGGCATACCATTGACAAAATCAATGTTGGATTACCAGCAAAATCTTCTCAAATTTGAACCAACTCAAGGAATGATTCCTGTTCTCT  
AATGAATCAAAAGAAATTAAGGATGAAGATGTCGAAAGTGTGTTAAATCAGCATTGACTAAAAGCATTACTCCTGAAGAGAGTATTATTCTATTG  
ATTCCGCTTGAATTCATTGTAGATGGTTTCCAAGGGATTAGAGACCTTAGAGGATGATGGGGATTTCGCTTGAAGATGCGTGTCTTATCTATFACT  
GGACCAACAACCTATCTTCTATAATCTTCGTAAACTGTTGAACGAGCAGGTATAAAGTAGAGCATGTTGTGATCGCCCTCTAGCCTTAGCAAAA  
TCAGTTCTAAACGAAGGTGAACGTGAGTTTGGTGCAACTGTGATTGATATGGGAGGCGGACAAACAACAGTCGCTTCTATCGCTAATCAAGAAATG  
CAATATACTAATATTATTCTGAAGGTAGCGATTATGTTACCAAGATATTCTTAAAGTGCTACGTACAACAGTAGAAATCGCCGAAGCATTTGAAA  
TTCAACTTTGGACAAGCTAATGTTGAAGAAGCAAGTACTTCTGATACAGTTTCAAGTTAATGTTTGTGTTAAGCAGGAACCTGTGAAATTCAGAA  
AGCTATCTTTTCGCAAAATTAATTCAGGACGATTTCGTCAAAATTTAGAACATGTCAAACAAGACTTGGGTAGAGGTGCTTTACTTGAATTTACCTGGT  
GGTATTATCTTGTGAGGTGGTGCAATTATGCCAGGAGTTGTGCGAGGTGCTCAACAAATTTTGGAACTAGAGTTAAATTGCACGTTTCCAAC  
CAAGTAGGATTTCGCAATCCAATGTTTGTCAATGTTATTAGTATGTTGATTATGATGAGGAATGATGTCAGAAGTTGACATTACGCACAAGACTGCT  
GTAACCTGGCGACGAAATTAAGACATAAACACAGTCAGCTTGTGATTAAGAAGAAAAACAAATACAATGTCAGAACTGCTTATTCAGGCGGTTA  
ACCTCTTCTATGGAAGATTCTAATTTAGAACCAATCCGAGCAAGAGAAAAACGCTCAAGAGCCTACTGAGCCTAAAGCTAATATTGGTGAGCGCATC  
AGAGGAATTTTGAAGATGTTTGGAC

## SEQ ID 220

MARNGFFTGLDIGTSSIKVLVAEFIANEMNVIGVSNVPSSGVKDGIIIDIEAAATAIKEAVKQAEKAGITIDKINVGLPANLLQIEPTQGMIPVP  
NESKEIKDEDVBSVVKLSALTSTPEREVLISLPLEFIVDGFQGIIRDPGRMMGIRLEMRGLIYTGPTTILHNLKRTVERAGIKVEHVVIAPLALAK  
SVLNEGEREFGATVIDMGGGQTTVASMNRNQLQYTNIIYSEGSDYVTKDISKVLRTTVEIAEALKFNFGQANVEEASTSDTVQVNVVGNNEEPEVITE  
SYLSQIISGRIRQLSHVRKQDLGRRLDLPGGIILVGGGALMPGVVEVAQQIFGTRVKLHVNPQVGIIRNPMFANVISIVDYVGMMESEVDIIAQHA  
VTGDEMLRHKVPDFDYKEKTNMTSTMPYSEPLTSSMEDSNLEPIRARENAQEPTEPKANIGERIRGIFGSMFD

## SEQ ID 221

TTGGACATTGGAAACAAGCTCGATAAAAGTTTTAGTAGCAGAAATTTATTTCTGGTGAGATGAACGTCATTGGTGTTAGTAATGTTCCAAAGTACCGGC  
GTAAAGATGGCATAATAATCGATATAGAGGCAGCTGCGACTGCCATCAAAAGCTCGCGGTAGAAACAAGCAGAAAGAAAAGCAGGGATGACAATTGAA  
AAGGTTAATGTTGGGCTACCGGCAAACTTCTTCAAATTGAACCAACAAGGAATGATTCTGTGCCAAGTGAGTCTAAAGAGATAAAGATGAG  
GATGTTGATAGCGTTGTTAAATCGGCTTTAAACAAAAGTATCACACCAGAACGAGAGGTTATCTCTTTAGTTCAGAAAGAGTTCATTGTGGATGGC  
TTTCAGGCGATTTCAGATCCACGTGGTATGATGGGGATTAGATTAGAGATGCGCGGGCTTATTTATACTGGACCAAGCACCATTTTACATAATCTG  
CGTAAACCGGTAGAAAGACGAGGCATTAAAGTTGAAAAATCATCATTATTTCTCCGTTAGCTATGGCTAAACCAATTTTAAACGAAGGTGAGCGCGAG  
TTTGGAGCTACTGTAATTGATATGGGAGGTGGACAGACAACTGTGCGTTCTATGCGAGCAACAAGAAATTCGATATACCAATATATATGCGCGAAGGC  
GGCGAATACATTACTAAAGATATATCAAAAGTATTAAAAAGCTCTTTGGCTATTGCAGAAGCACTTAAAGTTTAAATTTGGTCAAGCGGAGATATCA  
GAAGCTAGTATAACTGAAACAGTAAAGTTGATGTGGTAGGTAGTGAAAGAGCCTGTTGAGGTAACCTGAACGTTATTTATCTGAAATTTATTTAGCGG  
CGTATTCGTCATATTTTAGATCGTGTGAAGCAAGATTGGAAGAGGTCGTTTACTAGACTTACCAGGAGGCATTGTTTGGATTGGTGGCGGTGCA  
ATCATCGCTGGAGTGGAAATTCGACAAGAAATCTTTGGAGTAACTGTAAGAGCTCCATGTTTCCAAACCAAGTATGTTTCAATATGCTGCGGAGGCTT  
TCAAACGTTATCAGTTTGGTAGAATATGTTGGTATGATGTCTGAAGTAGACGTTTATGACACAACTGCAGTTTCAGGAGAAGAACTTTTGGCAGCG  
AAGCCTATCGATTTTCACTGGCCAAAGATCTTATTTACCAGATTATGATGATTCAAGAAAGACCAGAAATCGACCATTTGGCTATGAACAAACAGCGTCA  
CAACAGCATATGATTCAAGTTCGAGTGATCCTAAACAAAAAATTTAGAACGTTGTTCTGGCATATTTGGGAGTATGTTTGAT

## SEQ ID 222

LDIGTSSIKVLVAEFISGEMNVIGVSNVPSTGVKDGIIIDIEAAATAIKTAVEQAEKAGMTIEKVNGLPANLLQIEPTQGMIPVPSESKEIKDE  
DVDSVVKLSALTSTPEREVLISLPEEFIVDGFQGIIRDPGRMMGIRLEMRGLIYTGPTTILHNLKRTVERAGIKVENIISPLAMAKTILNEGERE  
FGATVIDMGGGQTTVASMRAQELQYTNIIYAEAGEYITKDISKVLKTSALAEALKFNFGQAEISEASITETVKVDVVGSEEFVEVTERYLSBIIISA  
RIRHILDRVKQDLERGRLLDLPGGIVLIGGAIMPVVEIAQEIFGVTVKLHVNPQVGIIRNPMFNSNIVSLVEYVGMMESEVDVLAQTAVSGEELLRR  
KPIDFSQESYLPDYDDSRPESTIGYEQQASQATAYDSQVPSDPKQKISERVIRGIFGSMFD

## SEQ ID 223

ATGGTATTTTCATTTGATACAGCATCAGTACAAGGTGCGATTATTAAGTTATTGGTGTTGAGGCGGTTGGCGGTAAAGCTATTAACCGCATGATT  
GACGAAGGTGTCGCTGGCGTTGAGTTTATTGACAGCAATACCTGATTCAAGCTTAAAGTAGCTCAAAGCTGAAACTGTCAATCAACTTGGTCCA  
AAATTAACCTCGCGGACTTGGTGACAGGAGCAACCTGAAGTTGGTCTGAAGCAGCTGGAAGAAAGTGAAGAAAGTTTAAACAGAGCACTTACTGCG  
GCTGATATGTTATTTATCACAGCAGGTATGGGGGGCGGATCTGGTACAGGTGCGGCTCCAGTTATTGCACGTATTGCAAAGAGTTTAGGAGCACTT  
ACAGTAGCGGTATCACACGTCCTTTTGGCTTTGAGGGTAATAAACGTTCTTAACCTCGCTATCGAAGGTATTCAAGAATTAAAGAGAACAAAGTTGAT  
ACACTGCTTATCATTTCAAATAATAATCTTCTTGAATTTAGTATAAGAAGACACCATTTGCTTGAAGCTCTTAGTGAAGCAGATAATGTTTACGT  
CAAGGTGTTCAAGGATTTACGATTGATTACTAACCAGGTTTAACTTAACCTTGAACCTTGAACCTTGAACCTTGAACCTTGAACCTTGAACCTTGA  
GCACTGATGGGAATTGGTATCGGTTCTGGTGAGGAACGTATTACTGAAGCTGCTCGAAAAGCAATTTATTACCACCTTCTTGAACCAACAGGATGAT  
GGAGCAGAAGACGTTATTGTCAATGTTACCGGCGGTATGGATATGACACTTACTGAAGCAGAGGAAGCATCAGAGATTGTTAGCCAGCAGCAGGT  
AAAGGTGTCAATATTTGGTTAGGTACTTCAATTGACATGGATATGAAGAGCAGAAATCCGCGTAACAGTTGTTGCAACAGGTTGATCGTAAGGATGAA  
ACTAATCAAGTATCTGCTGTTTACCAACATCAGCTCCAACTAATCAAGACCTTCAGAACGTCGAAAGTACTTCAATCAATCAATCAATCAATCAAT  
AACTTTGATATGACAGAGTCTCGCGAAATGCCAACTCAACAAAATCAGCCTCATGCACAAAATCAGCAACAAAGTTCTGCTTTTGGTAATTGGGAC  
CTTCGTGCTGATAATATTTTACGTCGACAGAAAGGTGAACCTTGATAGCAAGTTGTCTATGTCAACGTTTTTCAGAAAATGATGATATGGATGATGAA  
CTTGAACACCTCCATTCTTTAAAAACCGT

## SEQ ID 224

MVFSFDTASVQGAIVIKVIGVGGGGGNAINRMIDEGVAGVEFIAANTDIALSSSKAETVILQGLPKLTRGLGAGGQPEVGRKAAEESSEEVLTALGT  
ADMVFITAGMGGSGTGAAAPVIAIRIAKSLGALTAVVITRPFGEFEGNKRNFIAIEGIELREQVDTLIIISNNNLLLEIVDKKTPLEALSEADNVLR  
QGVQGITDLITNPGLINLDFADVKTVMANKGALMGIGISGEERITBAARKAIYSPILLETTIDGAEDVI VNVVTGMDMTLETEABEASEIVSQAG  
KGVNIWLGTSIDMDMKDEIRVTVVATGVRKDKTNQVSGFTTSAPTNPQAPSERQSTNSNFDRRGNFDMTESREMPQQNQPHAQNQQQSSAFGNWD  
LRRDNI SRTEGELDSKLSMSTFSENDMDDELETTPFFKNR

## SEQ ID 225

ATGGCATTTTCATTTGATACCTGCATCAATTCAAGGTGCAATTATAAAAGTAATTGGAGTTCGCGGAGGTGGCGGAAATGCCATTAATCGTATGATT  
GATGAAGGTGTTGCTGGTGTGCGAGTTCATCGCAGCAACACAGCACTTACAGGCATTAAGCTCATCAAAAGCTGAAACCGTTATTCAACTAGGCCCT  
AAATTAACCTCGCGGACTTGGTGCTGGAGGCAACCTGAAGTTAGGACGTAAGAGCTGCTGAAGAAAGCGAAGAAATTTTAAACAGAGCTCTTACAGGA  
GCGGACATGTTATTTACTGCGGATGAGGTGGTGGCTCTGGGACAGGGGCTGCACCGGTTATTGCTCGTATTCGCTAAAGATTGGGAGCGCTTG  
ACAGTAGCTGTTGTTACTCGCCGCTTTGGTTTTGAAGGTAAACAACTGGTAAATTTGCTATTGAAGGTATCGAAGAACTACGTGAACAAAGTTGAT  
ACTTTGTTAATTATTTCAAATAATAACCTTCTTGAGATTGTTGATAAAAGACACCTTTATTAGAAGCACTTAGTGAAGCTGATAATGTTTTACGC  
CATGGAGTTCAAGGATTAACCGACTTAATTACTAGTCTCGGCTTCAATCTCGATTTTGCCGAGCTGAAACAGTTATGGCAATAAAGGGAAT  
GCCTTGATGGGATTTGGGATTGGCTCTGGAGAAGAGCGCATTGTTGAGGCGGCGGTAAGGCAATCTATTACCCCTATTAGAAACGACTATTGAT  
GGTGACAAGACGTTATTGTGAACGTTACAGGAGGTTCGACATGACACTTACAGAAGCTGAAGAAGCCTCTGAATTTGTTGGGCAAGCTGCTGGT  
CAAGCGGTTAACTTTGGTTAGGAACATCTATTGATGATACTATGAAGATGACATCCGCTGAGCTGTTGTAGCAACTGGAGTGCGCCAAGAAAAA  
GCCGAACAAGTTTCAGGTTTTCTGTCAGCCTAGGACTTTTACCAAAACCAACGCGCAGCAAGTAGCGGGTGCAATATGCATCAGATCAAGCAAAA  
CAGTCGGTTCAACAGGGTTTGGATCGTCGCTCAAAATTTGATTTTGGATTTGACATGGGGAGTCTCGCAGATACCAAGTGACACAAAAGGTAATTTCTAAT  
CATAATCAAAATCAAGGTTCTGCTTTTGGAAATTGGGATTGAGACGTGATAATATTTCTCGTCCACAGAAGGTGAATTGGATAACCATCTTAAT  
ATGTCAACGTTCTCAGCTAACGATGACAGTGATGATGAATTAGAAACGCCTCCATTCTTTAAAAACCGT

## SEQ ID 226

MAFSFDTASIQGAIIVKIVIGVGGGGGNAINRMIDEGVAGVEFIAANTDIALSSSKAETVILQGLPKLTRGLGAGGQPEVGRKAAEESSEEVLTALGT  
ADMVFITAGMGGSGTGAAAPVIAIRIAKSLGALTAVVITRPFGEFEGNKRNFIAIEGIELREQVDTLIIISNNNLLLEIVDKKTPLEALSEADNVLR  
QGVQGITDLITSPGLINLDFADVKTVMANKGALMGIGISGEERIVBAARKAIYSPILLETTIDGAQDVI VNVVTGLDMLTEABEASEIVSQAG  
QGVNIWLGTSIDDTMKDDIRVTVVATGVRQEKAEQVSGFRPRTFTQTNAQQVAGAQYASDAQKQSVQPGFDRRSNFDMDGESREIPSAQKVISN  
HNQNGSAFGNWDLRDNI SRPTEGELDNHLMSTFSANDSDDELETTPFFKNR

## SEQ ID 227

ATGATGAATTTCAAGAAAATAAACAGCGATTTTGGACAATGTTAGTAAATTAGCACTAAAGCAGGTGCGGCTCATGAATCAGTTCATATCGTA  
GCTGTAAACAAATATGTTAACTGTCAAACAACAGAGCGCTTATTAGAACAGGTGTTAATCATATCGGTGAAATCGTGTGATAAATTTCTTGAA  
AAATATCAAGCATTAAGATGAAAGCTTACATGGCATCTCATTTGGTAGTTTACAAACGTCGAAAGTTAAAGATGTCATTAATTTATGTTGATTAT  
TTTCATGCTTTAGATTTCTGTTAAAGTTAGCAGCTGAGATTCAAAAACATGCTCAAAAACATTAATTAATGTTTCTACAAAGTAAATATACAGAGAA  
GACAGTAAGCATGGTTTTACTATTAGCAAAATAGATGATGCACTGAACCTTAATTTCTCGGTACGATAAAATTGAACCTATCGGCATCATGACTATG

GCTCCCTTAAAAGCAACTAAAGAGGAAATATCATCAATTTTGAAGAGACTGAGAGTCTTAGGAAAAGGCTTCAAGCTAGGAACATAGAACGAATG  
CCGTTTACAGAAATTAAGCATGGGCATGAGTAGAGATTATGATATTGCTATTCAAATGGATCAACATTTGTAAGGATAGGAACCTTCATCTTTTAA  
SEQ ID 228

MMNLQENKTAIFDNVSKLALKAGRAHESVHIVAVTKYVNCQTTEALIRTGVNHIENRVDKFLEKYQALKDEKLTHWHLIGSLQRRKVKDVINYVDY  
FHALDSVKLAAEIQKHAQKLIKFLQVNI SREDSKHGFTIEQIDDALNLSRYDKIELIGIMTMAPLKATKEEISSIFEETESLRKRLQARNIERM  
PFTELSMGMSRDYDIAIQNGSTFVRIGTSFFK

SEQ ID 229

ATGGATTTACTGACAAATAAAAAGAAAATTTTGGAGACTATCCGCTTATCTACAGAGGCAGCAAAATAGGACTAATGATAGTGTTCAGTTATTGCT  
GTAACAAAATATGTGGATAGTACAATTGCAGGTCAGCTTATCGAAGCAGGAATTGAGCACATTGCCGAAAACCGTGTGATAAAATTTCTGAAAAG  
TATGATGCGTTAAAGTATATGCCAGTAAAGTGGCATTAAATTGGTACCTTACAACGTCGTAAAGTCAAGGAAGTTATCAATTATGTTGATTATTTT  
CACGCTCTAGATTCTGTGAGATTAGCTTTGGAAATCAACAAGAGAGCTGACCATCCTGTGAAGTGTTCCTACAGTTAATATTTCTAAAGAAGAG  
AGTAAACATGGTTTTAACATTTCTGAGATTGATGAAGCGATTGGAGAAATAGGTAAGATGGAGAAGATACAGTTAGTTGGTTTTAATGACTATGGCA  
CCAGCAAAATGCCAGTAAGAAGAAATTAATACTATTTTCGACAGCAAAATCAATTAAGAAAAAATTCGAGTTAAAAAAGAAAGAAATATGCCCT  
TTTACAGAATTGAGCATGGGCATGAGTAACGATTATCCAATTGCTATTCAAGAAGGCTCAACTTTTATTCGATTGGTAGAGCTTTCTTTTAC

SEQ ID 230

MDLLTNKKKIFETIRLSTEAANRNDNSVSVIAVTKYVDSTIAGQLIEAGIEHIAENRVDKFLEKYDALKYMPVKWHLIGTLQRRKVKVINYVDYF  
HALDSVRLALEINKRADHPVKCFLQVNI SKEESKHGFNISEIDEAIGEIGKMEKIQLVGLMTMAPANASKESIITIFRQANQLRKNLQKKRKNMP  
FTELSMGMSNDYPIAIEQGSTFIRIGRAFFH

SEQ ID 231

ATGGAGGGGAATATGGCATTAAAGATAGATTTGACAAAATTATTTCTTATTTTGGAGCTGACGATGTAAGTGAAATGAAGTACACGAAGTACAA  
GAGAGAACTTCAGTGCAAGAGATTCAGAGCAGCTACAGCACAGGAAGCTTCTCAGCGTAGTCATATGACTAACTCCGAGAGGAAGAGATGATT  
GGTAGTCGTCCGAGAACTTATACCTATGATCCTAATCGTCAGGAGACAAAGGGTACAGAGAGACAATGCTTATCAGCAAGCTACTCCTAGGGTT  
CAAAATAAGACTCAGTTTCGACACAGAGAGAAAGTAACAATGCTTGAAGTATCCCGTAAAGTATGAGGATGCACAAGAAATTTGTTGATTTA  
CTTATCGTTAATGAATGTGTCTTGATTGATTTTCAATATATGCTTGATGCGCAAGCACGACGTTGCTTGGATTATATTGATGGTGCAAGTAGAGTA  
TTATATGGTTTCATTACAAAGGTTGGGAGTTCAATGTTTCTATTAAACCAGCCAATGTTATGGTTGATATTGAGGAGATGAATATTCCAAAGACT  
GGTCAAGAGACGAGTTTTGATTTTGATATGAAGAGACGA

SEQ ID 232

MEGNMALKDRFDKIIISYFDTDDVSENEVHEVQERTSVQRDSRAATAQEASQRSHMTNSAEEMIGSRPRTYTYDPNRQERQVRQDNAYQQATPRV  
QNKDSVRQREQVTIALKYPRKYEDAQEIVDLLIVNECVLIDFQYMLDAQARRCLDYIDGASRVLYGSLQKVGSSMFLTPANVMVDIIEEMNIPKT  
GQETSFDFFDMKRR

SEQ ID 233

ATGGAGAATAAGATGGCTTTTAAAGATACATTTAAACAAGATGATTTCTTATTTTGGACCGGATGAGGTTAACGAAGTTGAAGAAGATGTTGCAGCA  
TCAACTGATAACGTTATTTCCAAGATCACAACAATCAGTCAGAGCAAGTAGTCATCCAAAACAAGAACCTAGAAAACATCAGTACAACAAGATCAT  
CAAGCGAGATCCCAAGAACAGACAAAGTGCACAAATGCATCCAAAACATGGCATTCTGTAACGCTATTATCAGCAGTCTCAGCCAAAAGAGGCCAT  
GAAATGGTTGACAGAAGAAAACGGATGAGCACTTCTAGTATTGCAAAATCGCCGTGAGCAGTATCAACAATCAACTTGTTCAGATCAAAACAATATT  
GCCTTAAAGTATCCTCGTAAATATGAGGATGCTCAAGAAATTTGGGATCTTTTAAATAGTTAATGAATGCGTTTTGATTGATTTTCAGTTTATGCTA  
GATGCTCAGGCTAGACGGTGTGTTAGATTTTATTGATGGTGCTAGTAAAGTGCTCTATGGTAGCTTACAAAAGGTGGGCTCTTCAATGTACTTACTG  
GCTCCGTCAAATGTATCCGTCAATATAGAAGAAATGACTATCCACATACTACACAAGATATTGGCTTTGATTTTGATATGAAAAGGCGG

SEQ ID 234

MENKMAFKDTFNKMIISYFDTDEVNEVEEDVAASDTNVI PRSQSVSRASHPKQEPNNHVQDDHQARSQEQTRSQMHPKHGTSERYQQSQPKBEGH  
EMVDRRKMSTSSIANRREYQQSTCSDQTTIALKYPRKYEDAQEIVDLLIVNECVLIDFQYMLDAQARRCLDFIDGASKVLYGSLQKVGSSMYLL  
APSNVSVNIEEMTIPHTTQDIGFDFDMKRR

SEQ ID 235

ATGACGTTAGATGATATTTATCAGCATTTCGACCAGAAGAGTATGCGTTTATCCATAAAATAGACCATTTAGCTCAATATGTCGAAAACACCTAT  
TCGTTTATACCACTGAATTTCTAAATCCTAGGGAATTTAAAACTAGCAAGAGTGTCTAGAGAGGCGAGGTAGTCATTATTACACTTCTGGTCAG  
TATTTTCAACAGAAATATGTTAAAGTAATAATAGCACCGGAATACTATCAGTTAGATATGGCTGATTTTAACTTAGCCTAATTGAAATAAGTAT  
AATGCTAAATTTAATCAGCTTACCATGCTAAAATATGGAACCTTTACTGAATTACTTAGGTGTAACGATCAATTTTAGGGGATATCCTAGTT  
GAAGAAGGCTGTGCTCAGGTTTGGTCGATAGTCAAATGACAAATCACCTTGTTCATTAGTTACAAAATTTGGAAGTCTAGTGTACAATTAGCT  
GAAGTTCCTTGTCCAACTTCTAACTCCAAACAAGATTTGGAATTTGGAATTTTAAATAGTTAATGAATGCGTTTTGATTGATTTTCAGTTTATGCTA  
ATTTTAAAGATTTACGAACACAGTCGACGAAATGATTGAGGCAGATAAAGTCAAGGTCAATTATGCAACCGTCAATCGAGTTTCTGAACAATTA  
GTAGAGGGGGATTGATTAGTGTAGAGGATATGGTCGATTTACGTTGAACCATAACTAGGGTTAACTAAAAATCAAAAATATAAGTTAGAAGTA  
GACAAAATGATACATAAC

SEQ ID 236

MTLDDIYQHFRPEEYAFIHKIDHLAQYVENTYSFITTEFLNPREFKILESVLERRGSHYYSQGYFQTEYVKVIIAPEYYQLDMADFNLSLIEIKY  
NAKFNHLTHAKIMGTLNLVGVKRSILGDLILVEBGCAQVLVDSQMTNHLVHVSVKIGTASVQLAEVPLSKLLTPKQDIQKLTIVIASLRLDKILAT  
ILKISRTQSTKLEADKVKVNYATVNRVSEQLVEBGDLISVRGYGRFTLNHNLGLTKNQKYKLEVDKMIHN

SEQ ID 237

ATGGTTAGTCATAGTAAGATTTATCAGCATTTCACCAAGAAGATATCCTTTTATTGATAGAATGTCTGATATGATTAATAGAGTTGAAGATTAC  
TATCTTTTAGAAGTTACTGAGTTTAAATCCTAGAGAAGTGATGATTTTAAAAAGTTTGTATTGCTTTAACAGATCTAAAATGTTCTGTATCAACA  
GATTACTACCCAAGCGAATATGGTCGTGTCATTATGCACTGCTTACTATGACTTAGAACAAAGTGATTTTCAAATAGCTTTAGTAGAGATAAGT  
TATCAGGCAAGTTTAAATCAGTTGACACATAGTCAAATTTAGGAACTTAAATTAATGAATTAGGAGTAAAGCGAAATTTATTGGAGATGTTTTT  
GTTGAAATGGGATATGCCAGCTCATGATTAAAGCGGGAGTTATTGGATTATTTTTAGGAACAATTAATAAATAGCTAAAACCTAGTGTGAAATTA  
AGAGAAGTTAACTTTGATCAGTTAATTAGGTCATTGATAACAGCCAGACCTGGATATTCTAGTTTCTAGTTTTCGATTAGATGGGTGATGTTGCT  
ACTATCTTAAAAAATCTCGAACGCAAGTTATAGCATTAAATGAGCAAAATAAGATTAAAGGTAAACTATCGAGTTGCTAATAAAGCTTCAGATAAT  
CTAGTCATAGGGGATATGGTGAGTATCAGAGGTCACGGGCGTTTACTCTTTTAGCAGATAATGGAGTGACCAACATGGCAACAAAAATAACA  
CTAAGTAAAAATGATACATAAA

SEQ ID 238

MVSHSKIYQHFHQEEYFIDRMSDMINRVEDYLLLEVTEFLNPREVMILKSLIALTLDKMFVSTDYPPSEYGRVIIAPGYDLEQSDFFQIALVEIS  
YQAKFNQLTHSQILGTLINELGVKRNLFQGVFVEMGYAQLMIKRELLDYFLGTTTKIAKTSVKLREVNFQDLIRSIDNSQTLTDLVSSFRDLGAVVA  
TILKKSRTQVIALIEANKIKVNYRVANKASDNLVIGDMVSIIRGHGRFTLLADNGVTXKHGKQKITLSKMIHK

SEQ ID 239

ATGCCACTTACAGCACTTGAATTAAGATAAAACATTTTCATCAAAATTTTCGCGTTTATAGCGAAGAAGAGTTAATGAATTTTATGAGATTGTT  
GTTGACGATTACGAGGACTTGATTAGACGTAATCGTGAGCAAGAGCAATACATTAAAGATTTAGAAGAGAAAATCGCTTACTTCAACGAAATGAAG  
GAATCGTTAAGTCAATCAGTTATTTTAGCTCAAGAACTGCTGAGCGGTGTGAAAATTTTACGACAGGATGAAGCATCTAACCTAATGGGGAAAGCT  
ACATTTGATGCTCAACATTTAATTGATGAGGCTAAATTAAGCAAAATCAATCCTTCGAGATGCGACAGATGATGCTAAGCGTGTGCTATAGAA



-25-

ACAGAAGATTGAAACGTCAATCACGTGTTTTCCACCAACGTTTGCTTCTGAGTTAGAAGGGCAGCTAAAATTAGCTAACTCATCTGCTTGGGAA  
GAATTGTTGAAACCAACAGCTATTTATCTTCAAATTTCTGATGCTTCTTTCAAAGAAGTTGTGAAAAAGTTCTTGATGAAGATGATGCTTTACCA  
GTGGTGGATGACACTGAGTCATTTGATGCTACTCGTCAATTTCTACAGATGAAATGGAAGAATTACAGCGTCGTGTTGAAGAAAGTAACAAACAA  
CTTGAAGAGTCAGGTTTATTAGATACTAATAATTTCCAATGGAAGAACCAGATCAATTTAGGTGAAACTCAAACCTTTTAAATTAATATTGAAGAT

SEQ ID 240

MPLTALEIKDKTFSSKFRGYSEEEVNEFLEIVDDYEDLIRNRREQBYIKDLEEKIAYFNEMKESLSQSIVLAQETAERVKISAQDEASNLMGKA  
TFDAQHLIDEAKLKANQILRDATDDAKRVAIETEDLKRQSRVHFQRLLSLEBQLKLANSSAWEELLKPTAIYQNSDASFKEVVEKVLDEDDALP  
VDDTSEFDRQFSPDEMEELQRRVEESNKQLEESGLDNTNNFQMEEPINLGETQTFKLNIED

SEQ ID 241

ATGGCACTTACAACGCTAGAAATTAAGATAAAAACCTTTTAAGACAAAATTCGAGGATACTGTGAAGAAGAAGTCAATGAATTCCTTGATATTGTT  
GTTGATGATTACGAAGCTCTTGACGTAAAAATCGTGATAACGAAGCAAGAATTAAGATCTTGAAGAAAAATTTATCTTACTTTGATGAAATGAAA  
GAGTCACTTAGCCAGTCTGTAATCTTAGCTCAAGAAACAGCTGAAAAAGTGAAAGCAACGGCTAATGCGGAAGCAACAACTTGGTTAGTAAAGCG  
ACTTATGATGCTCAGCATTTATTAGATGAATCTAAGCTAAGCAATCAATCTCATCTATTGAGTCACAATTAAGCTTATCAAAATTCACCTGAATGGGAT  
ACAGAAGAAGCTAAGCGTCAACACAGCTGTGTTCCACACGTTTAATCTCATCTATTGAGTCACAATTAAGCTTATCAAAATTCACCTGAATGGGAT  
GAACCTGCTACAACCGACTGCAATCTATCTTCAAATTTCTGACGATGCTTTTAAAGGAAGTCGTGAAGACCGTCTTAAATGAAGACATTCTGAAATCT  
GATGATAGTGCCTCTTTTGATGCAACACGTCAGTTTACTCCAGAAGAGTTAGAAGAATTGCAACGTCGTGTTGATGAAAGCAATAAGGAGTTAGAG  
GCTTACCAACTTGACTCTCAATCTGATTCTACGACTGAGCCAGAGGTAATCTCAGTGAAACACAAACGTTTAAATTAATATC

SEQ ID 242

MALTTLEIKDKTFKTKFRGYCEEEVNEFLDIVDDYELVRKNRDNARIKDLEEKLSYFDEMKESLSQSIVLAQETAERVKATANABATNLVSKA  
TYDAQHLDES KAKANQMLRDATDEAKRVAIETBELKRQTRVHFQRLISSIESQLSLSNSPEWDELLQPTAIYQNSDDAFKEVVVKTVLNEDIPES  
DSDASFDRQFPTPEEELQRRVDES NKLEAYQLDSQSDSTTEPEVNLSETQTFKLNIED

SEQ ID 243

ATGAAATTAAAGAAACCTTGAATTTAGGACAAACAGCTTTTCCAATGCGTGCAGGGCTTCCAAATAAGGAACCTCAATGGCAAGAAGCATGGGAT  
CAAGCTGACATTTATAAAAAACGTCAGCATTTGAATGAAGGAAAAACAGCCTTTACCTTCATGACGGACCTCCCTATGCTAAATGGGAATATTTCAT  
GTAGGACATGCACTAAATAAAATTTGAAAGACATTATTGTACGTTCAAATCAATGTCAGGTTTTCGAGCTCCTTATGTGCTGCTGGGATACT  
CATGGACTCCCAATTTAGCAGTAATTTAGCTAAAAAAGGGGTTAAACGCTAAGAAATGGACTTGGCTGAATACCTTGAATGTGCTGATGATGCT  
CTCAGCCAAAGTTGACAAACAGCGTATGATTTTAAACGCTGCGGCTTTCTGCGGATTTGGGAAAAATCCTTATATTACCTAACACCCAGATTATGAA  
GCAGATCAAGTACGCTGTTTTCGGTGCTATGGCAGATAAAGGATATATCTATCTGCTGCTAAACAGTGTATTGGTCAATGCTCAGAGTCTGCC  
CTTGCTGAGGCTGAAATCGAATATCATGATATTGATTGCAATCACTTACTATGCGCAATAAAGTTAAAGATGGTAAGGGAATTTCTTGATACAGAT  
ACCTATATCGTCGTTTGGACGCAACACCATTTACTGTAAACAGCTTACCGCGTTTAAACAGTAGGACAGATATGGAGTATGTTGATGTTGATACCA  
GTAGGTAGTGAGCGTAAATACCTTCTTGCAGAGGTTCTTGTAGATAGTCTCGCTGCTAAGTTTGGCTGGGAAAACTTTGAAATTTGTGACTCATCAC  
ACTGGTAAAGAACTTAATCATCATTTGTTACAGAACATCCATGGGATACAGAAGTAGAAGAGTTGGTTATCTTGGAGACCATGTTACAACAGATTCT  
GGTACAGGTATTGTCACACGGCTCCTGGTTTGGTGAAGATGATATAACGTTGGTATTTGCTAATGAGCTTGTGTTGATGTTACCGTAGATAGT  
CGTGGTTTGTGATGAGGAAATGCTGGTCTGATTTTGAAGGTCAATTTCTATGACAAAGTAAACACCACTTTGTAAGAAAAATTTGGGAGATCTTCTT  
TTAGCCAGCGAAGTTATCAACCACTCATATCCATTGACTGGCGTACGAAAGCAATCAATTTGGCGTGGGTTCCCAATGGTTTGGCTGCTGTT  
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GGCGACTGGGTAATCTCAGCTCAACGTCGCTGGGGTGTCCACTTCCAATTTTTATGCAAGAAGATGGTACAGCTATCATGACAAAAAGAGTGACT  
GATCAGCTTGCAGATTTATTTGCTGAATACGGCTCAATCGTTTGGTGCAACGTCGTAAGGACCTTCTACAGCAGGTATATCTCATCTCAGGT  
TCACCTAATGGTCTCTTTGAGAAAGAAACAGACATCATGATGTTTGGTTGATGCTGCTGCTCATGGAATGGGTAATGAAATGCTCGTGAAGAAC  
CTTTCCTATCCAGCAGATCTTTATCTTGAAGGTTCTGATCAATACCGTGGTGGTTCAACTCATCACTAATTACATCAGTTGCTGTTAATGGTCA  
GCTCCATACAAAGCAGCTCTTATCTCAAGGTTTGTACTTGATGGTAAAGGTGAGAAAAATGCTAATCTCTAGGAAATACAAATCTTCTCTAGTAT  
GTTGAAAAACAAATTTGGTGGGAAATCTTGGCTCTGTGGGTAACTCTGTTGACTCAAGTAATGATGTTTCGATTTTCAATGGATATCTTAAACAA  
AATTTAGTGCCGTTCAAGAAATCCTCGATGAAATTTGAAAGACAAATTTCCAACCTGAGTGGGGTAAAAACGCTCTTTATAACATGATCCGTGACCGT  
TATAAGCTGCTGTTAACTTCTGTAACAGTTGATCTATCAGCATTTTACCTTGATTTTGCAGAAAGATGTGGTTTACATTTGAAGCGGCTAACAGTCCA  
GAACGACGTCGATGCAAACTGTTTCTATGATATTTAGTTAACTTACAAAACCTTTGACTCCGATTCTACCATATCTGCTGCTTATGATTTTATGGCAAT  
TCATACCTCGAATCAGGAGGAGGAGTGTGTTCAATTAGCAGAAATGCTGTTGCTGACAGACATTTCTGCTCAAGAAAGAAATCTTGAAGAGTGG  
TCAGCATTCATGACGTTACGAAACAGAGCTCAAAAAGCTCTCGAAGAAGCAGTAACGCTAAAGTTATTGGTAAATCTCTAGAAGCAGATTTAACA  
ATTTATGCTAGTCAAGAAGTGAACAGCTTATTAACAGCGTTAAATAGCGATATTGCACTCTTGATGATTGCTCACAATTAACAATTTGCTGATGAA  
GCAGACAAACAGCTGACTCAGTATCATTTGAAGGTGTTGCAATTTACTGTTGAACACGCTGAAGGTGAAGTCTGCGAACGCTCACGCCGATTTGAT  
CCAACCAAAAGATGCGTTCTGATGGTGTAGCTGTTTGTGATGCTAGTGCAACAAATATTGAGCAATATTATCTGAGGAGTATGCTCAAGGTTTT  
GAAGCT

SEQ ID 244

MKLKETLNLGQTAFFPMRAGLPNKEPQWQEAWDQADIYKKRQALNEGKPAFHLHDGPPYANGNIHVGHALNKISKDIIVRSKSMGFRAPYVPGWDT  
HGLPIEQVLAKKGVRKEMDLAEYLEMCRDYALSQVDKQRDDFKRLGVASADWENPYITLTPDYEADQVRVFGAMADKGYIYRGAKPVWWSSES  
LAEAEIYHDIIDSTSLYANKVDKGILDTDTYIVVWTTTPTVTRSGTLVPGDMRYVVPVVGSRKYLALAEVLVDSLAAKFGWENFBIVTHH  
TGKELNHIIVTEHPWDTEVEBLVILGDHVTTDSGTGIVHTAPGFGEDDYNVGIANGLDVVVTVDSRGLMMENAGPDFEGQFYDKVTPLVKEKLGDDL  
LASEVINHSYPFDWRKKPIIWRAPQWFASVSKFRQILDEIEKTNFQPEWGGKRLYNMIRDRGDWVISRQRAWGVPLPIFYAEDGTAIMTKEVT  
DHVADLFAEYGSIVVWQRDAKDLLPAGYTHPGSPNGLFEKETDMDVWFDSGSSWNGVMNARENLSYPADLYLEGSQYRWGFWNSSLITSVAVNGH  
APYKAVLSQGFVLGKGKMSKSLGNTILPSDVEKQFQGAELRLVWTSVDSNSNDVRI SMDILKQTSERYKIRLNTDPLIANTSDPNPKQDAVAYE  
NLGAVDRYMTIKFNQVVDITINKAYAYDFMAIYKAVNVFVTVDSLAFYLDFAKDVVYIEAANSPERRRMQTVFYDILVKLTLLTPIPLPHTABEIIW  
SYLEHEEEFVQLAEMPVAQTFSGQEBILEEWSAFMTLRTQAQKALEEARNAKVIGKSLAEHLTIYASQEVKTLTALNSDIALLMIVSQLTIAD  
ADKPADSVSFEQVAFTEVHAEGEVCSRRIDPTTKMRSYGVAVCDASAAIIEQYYPEAVAQGFEA

SEQ ID 245

ATGAAATTAAAGAGACACTTAATCTAGGAAAAACAGCCTTTCCAATGCGCGCAGGCTTCTCCTAATAAGAGCCACAATGGCAAGCAGCTTGGGAA  
CAAGCAGAGCTTTACAAAAACGTCAGAAATGAATGACAGGTAGCCTGCCCTTCATCTTATGATGGACCTCCATACGCTAACCGCAATATTCAC  
GTTGGGCATGCCCTTAATAAAATTTCAAAGATATCATTTGTGCGTCTTAAGTCCATGCTGCGCTTTCAAGCGCTTATGTACCTGGTTGGGACACA  
CACGGCTTCCAATCGAACCAAGTCTTGGCTAAGCAAGGAATCAAACGTAAGGAGATGGATTTAGCAGAATACCTTGAGATGCTGCTCAATGCTG  
TTAAGTCAGTTGATAAAGCAGCAGAGATGATTTCAAACGTTAGGTGTTTTCGGCAGACTGGGAAAAATCCTTATGTCACTTTGGACCCACAGTTTGAA  
GCTGATCAAAATTCGTGTTTTTGGAGCGATGGCTGAAAAAGGTTACATCTATCGTGGTGTAAACCTGTTTATTGGTCAATGGTCTTCAAGATCGGCC  
TTGGCAGAGGCTGAAATTTGAATACCATGACATGATTTCAACCTCTTTTATACTACGCCATAAAGTTAAAGATGGTAAAGGTATCTTTGATACATA  
ACGTATATCGTTGTTTGGACCACAACACCATTTACCGTTACAGCATCAGCGGTTTGTACTGTTGGTCTGTATGATGATGATGATGATGATGATGAT  
GCTGTTTCAGACCGTCAATATGTTGTGGCAGAAAGGCTTTTGGATAGCTTGTGCGGAAAAATTTGGCTGGGAAATCTTTTGAACCTTTAGCTAGCCAT  
AAAGGAGCTGATTTAGAGTACATTGTGACAGAACACCCATGGGATAGTACGCTAGAAGAATTGGTTATCTTGGTGACCATGTTACCTTTGAGTCA  
GGGACAGGGATTGTCCACACAGCACCAGGTTTTGGTGAGGATGACTACAATGTTGGGACAAAAATACAACTGGAAGTTGCTGTGACTGTTGATGAA  
CGTGGCCTAATGATGAAAAATGCAGGTCCAGATTTCCACGGACAATTTATAACAAGGTAACGCCGATTGTCAATTGATAAATCTGGTGATCTTTTA

TTGGCACAAGAAGTGATCAATCACTCTTACCCATTTGACTGGCGGACGAAAAAACCAATCATCTGGCGTGCTGTACCGCAATGGTTTGCTTCTGTT  
TCTGATTTCCGTCAGATATTTTGGATGAAATGAAAAACAACCTTTTCATCCATCATGGGGTGAAACACGCCCTTTACAATATGATTCGTGATCGT  
GGCGACTGGGTTATTTCTCGTCAACGTGCTTGGGGAGTTCCGCTTCTCTATCTCTATGCCGAAGATGGCACAGCTATTTATGACTAAAGAAGTGACA  
GATCATGTGGGCTGATTTGTTCCAAAGAAATGGATCAATCAATTTGGTGGGCAAAAGAAGCTAAAGACCTATTACCAGAGGGCTTCACTCATCCAGGG  
TCACCAATGGCGAGTTTACAAAGAAATGATATCATGTGACCTTTGGTTGCTTCTGTTCTTCTTGAATGGAGTCATGAATACTAAAGAAAAAT  
CTTTCCTATCCAGCGGATCTATACTTAGAAGGCTCTGACCAGTATCGTGGTTGGTTCAATTCACTCTTAATTACATCTGTGGCTGTAAATGGGCAT  
GCTCCATATAAGGCTATTTTATCGCAAGGCTTTGTTCTTGATGGTAAGGGCGAAAAATGTCTAAATCAAAGGCAATATCATTTCTCCTAATGAT  
GTGGCTAAACAATATGGTGCAGATATTTCTCGACTTTGGGTAGCTTCTGTGGATACCGATAATGATGTCCGTGTTTCTATGGAGATCCTTGGTCAA  
GTCTCTGAAACTTACCGTAAAAATCCGTAAACACCCCTTCGCTTCTTGATGCTAATACATCTGATTTCAACCCTGCTACGGATACAGTAGCTTATGCA  
GATTTAGGAACGTGTTGATAAGTACATGACAATGTCTTTAATCAGTTGGTAGCAACGATTACTGACGCTTATGAGCGTTATGACTTTATGGCTATT  
TACAAAGCAGTGGTGAACCTTTGTACGGTTGATTTATCAGCCTTCTATCTTGATTTTGCTAAAGACGTTGTCTATATTGAAGCTGCCAATAGCTTA  
GAACGTCGTCCGATGCAGACAGTCTTCTATGATATCTTGGTTAAGATTACCAAGTTATTGACGCCAATCTTGCCTCACACTACTGAAGAAATCTGG  
TCTTATCTAGAGCATGAGTCAGAAACATTTGTTCAATTTGGCAGAAATCGTCTGGCAGAAACCTTCTCGGCTCAAGAGGATATTTTGAAGCTTTGG  
TCAGCTTTTCATGACTTTGCGTACTCAAGCTCAAAAAGCTTTGGAAGAAGCGCGAAATGCTAAGATTATCGGTAATCATTGGAAGCCCATTTGACC  
ATCTACGCTAGTGAAGAAGTGAAGAACTTATTGACTGCTTTAGACAGCGATATTTGCTTTGCTTTTGATCGTGTCTCAATTAACCAATTGCTGACTTG  
GCAGATGCGCCTGCGGATGCAGTGGCATTGTAAGGTTGCTTTTATAGTAGAACATGCCATAGGTGAAGTTTGTGAGCGTTACGTCGCATCGAC  
CCAACTACTCGCATGCGTCTTCAATATGCATTTGCTCTGTGATCACAGCGCTAAAAATCATTGAAGAAAAATTTCCAGAACGCTGTGGCTGAAGGTTT  
GAAGAGAGTGGCAA

## SEQ ID 246

MKLKETLNLGKTAFFPMRAGLPNKEPQWQAWEQAELYKKRQELNAGKPAFHLHDGPPYANGNIHVGHALNKSIDIIVRSKSMSGFQAPYVPGWDT  
HGLPIEQVLAKQGIKRKEMDLAYLEMCRQYALSQVDKQRDDFKRLGVSADWENPYVTLDPQFEADQIRVFGMAEKGYIYRGAQKPYVWSWSESA  
LAEAEIEYHDIDSTSLYANKVKDGKILDTNTYIVVWTTTPTVTASRGLTVGPDMDYLVVKPAGSDRQYVVAEGLDLSLAKGFGWESFETLASH  
KGADLEYIVTEHPWDDTVEELVILGDHVTLES GTGIVHTAPGFEGEDDYNVGT KYKLEVAVTVDERGLMMENAGP DFGHQFYNKVTPIVIDKLGLDL  
LAQEVINHSPYFDPWRTKKPIIWRAPVQWFASVSDFRQDILDEIKTTTFFHPSWGETRLYNMIRDRGDWVISRQRAWGVPLPIFYAEDGTAIMTK EVT  
DHVADLFQENGSI IWWQKEAKDLLPEGFTHPGSPNGEFTKETD DIMDVWFDSSGSWNGVMNTKENLSYPADLYLEGS DQYRGWFNSSLITSAVNGH  
APYKAILSQGFVL DKGKMSKSGNIISPNDVAKQYGADILRLWVASVDTDNDVRVSM EILGQVSETYRKIRNTLRFLIANTSDFNPATD TVAYA  
DLGTVDKYMTIVFNQLVATITDAYERYDFMAIYKAVNVFVTVDLSAFYLDFAKDVVYIEAANSLERRRMQTVFYDILVKITKLLTPILPHTTEEIW  
SYLEHESAEFVQLAEMPVAETFAQEDILEAWSAFMTLRTQAQKALEARNAKIIGKLEAHLTIYASEEVKTLTALDSDIALLLIVSOLT IADL  
ADAPADAVAFEGVAFIVEHAIGVECCERSRIDPTTRMSYNFVCDHSAKIIIEENFPEAVAEGFEESGK

## SEQ ID 247

ATGAGACTAATTAATACAACAGTAGTCATCCTGAAC TAGTTCGAAATCAACTCCAAATACAGATGCAAAATTAGTGAAGTCTATT CAGCTGGC  
AACACCGATGTCGTTTTTACAAAGCACCTAAACATTATGAATTTATTAATTTCAAACAATATCGTGTATCAAGAGTGAAGAATTAGAAGCTATT  
CGTGAGTTCTTCTTAAAGCGTAAATAGATCAATCTATTATTATTTCAAGAGCAGATGAAATCACTCCATACTGCCAAGTTAATTGAAATTT CATAT  
CCAACAACAGCA

## SEQ ID 248

MRLINTTSSHPELVRNQLQNTDAKLVEVYSAGNTDVVFTKAPKHYELIISNKYRAIKDEELEAIREFLKRKIDQSI IQEQMKS LHTAKLIEISY  
PTTA

## SEQ ID 249

ATGAGACTCATCAATACCACTAGCAGTCACCCAGAACTCATCAAAAATCAGCTAAAAAACACCGATGCCTATTAGTGAAGTATACTCAGCAGGA  
AATACAGATGTCATTTTTACCCAAGCACCAAAACATTACGAAC TACTATTTCAAATAAATACCGTGCCATCAAGGAGGATGAAC TTGATATCATT  
CGCGAATTTTTTTAAACGTAATAATTGATCCTAAATTTGTTATTCTTGGACAATCAAAAACACTTCACACGAATAACCTTATTGAAATTT CATTT  
CAAACCTTCTGTA

## SEQ ID 250

MRLINTTSSHPELIKNQLKNTDAYLVEVYSAGNTDVI FTQAPKHYELIISNKYRAIKDELDI IREFFLKRKIDPKVIPGQSKTLHTNLI EISF  
QTSV

## SEQ ID 251

ATGACTAATCTACTTTTCGGTGAAAAAATAGATAATGTAAACTATAGGTCACGATTTGGTGTCTATGCTATTATTCCAAATCCAACTCATGATAAA  
ATTATTCTTAGTACAGGCACCTAATGGTCTTGGTTTCTTCCAGGTGGGAAATTTGAAGAAAAATGAAAAATCACTAGAAAGCTTTAACTCGTGAGTTA  
ATTGAAGAATTAGGTTATTTCGCAACAATTGGCCATTACTATGGTCAAGCTGATGAATATTTTACTCTAGACACCGTGATACTTACTACTATAAT  
CCCGCCTATATTTATGAAGTTACTGCCTATCATAAAGGATCAAGCGCCACTAGAAGATTTC AACCATCTAGCCTGGTTTCTCTATCCAAGAAGCTAAA  
GAAAAGCTAAAAACGAGGAAGCCATAGATGGGGTGTCCAAGCTTGGGAAAAAAATCACCATTCTAGGAAA

## SEQ ID 252

MTNPTFGEKIDNVNYSRFRGVYAIIPNPTHDKIILVQAPNGAWFLPGGEIEENENHLEAL TRELIEELGYSATIGHYYQGADEYFYSRHRD TYYYN  
PAYIYEVTA YHKDQAPLED FNLHAWFP IQEAK EKLKRGSHRWGVQAW EKNHHSRK

## SEQ ID 253

ATGATGATTCCAACATTTGGACATAAAAAATGCACATAAAGACTATGTACACGTTACGGTGTCTATGCTATCATTTCCCAATCAGAACAAAA CAAAA  
ATTATTCTTGTTCAAGCTCCTAATGGTTCTTGTTTTTACCTGGTGGTGAATTTGAAGCAGGTGAAGGTGAGCTTACGGCCCTAGAGCGTGAAC TG  
ATTGAAGAACTTGGTTTTTCTGCTACTATTGGTTTCATATTACGGTCAGGCAGATGAATATTTCTACTCTCGCCATCGTGATACCCACTTCTACCAT  
CCTGCCTATCTTTATGAAGTAAC TGCATTTCAAGCCGTTTCTAAGCCCTTAGAAGATT TTAATAACTTAGGTTGGTTTTCTCTATCGAGGCAATT  
GCTAAATTA AAAACGAGAGAGCCATCAATGGGGAGTCAAGGAATGGCAAAAAAGCATCATTCTACTAAC

## SEQ ID 254

MMIPTFGHKNAHKDYVTRYGVYAIIPNHEQTKIILVQAPNGSWFLPGGEIEAGEGQLQALERE LIEELGFSATIGSYQGADEYFYSRHRD THFYH  
PAYLYEVTA FQAVSKPLEDFNNLGWFSPIEAI AKLKRESHQWGVKEWQKKHHSN

## SEQ ID 255

ATGCTCTGTCAAACTGCAAACTAAACGAATCAACTATTCTATTGTATACAAATGTTAATGGAAAAACAAAAGCAAGTTGATCTTTGTCAAAAT TGC  
TACCAAAATTATTAAAAC TGAACCTAATAATCCACTTTTTTCAGGTTTAAATCATGTTTTCACATGCGCTGGTGGCATCAATCTTTCTTTTGATGAT  
TTCTTTGGAGATT TAAATAATTT CAGAGCCTTTAATGGCCAAGATTTACCAACACTCCTCTACACAATCAGGAGGAAACCGAGGTGGAGGAAAC  
GGTAATGACGAAATAATAATCGCAACCAAACTGCAACTCCTTTCTCAAGCCAAAGGGATTCTAGAAGAATTTGGTATCAATGTCACTGAAATAGCC  
CGCCATGGTGATATTGACCCTGTTATTGGACGTGACTCAGAAATATTCTGTGTTATCGAAATCCTTAATCGTCGTACAAAAATAATCCTGTACTT  
ATTGGCAACCCGCGTTTGGGAAAACTGCGGTTGTTGAAGGACTTGTGTAAGGATTTGTTGATGGTAATGTGCGCTCATTAACCTTCAAGGCAAA CAA  
GTTATTCTGTTTGGATGTTGTGAGTCTAGTACAAGGAACGGGCATTCTGTGTTCAATTTGAAGAACGCATGCAAAAGTTGATGGAAGAAATTCGTCAA  
CGTCAAGATGTTATTCTATT CATAGATGAAATTCACGAAATAGTTGGAGCTGGTACAGCTGGCGAAGGTAGTATGGATGCAGGTAATATTTTAAA  
CCTGCCCC TGCAGCTGGAGAATTACAAC TAGTAGGTGCTACTACTCTCAATGAATATCGTATTATCGAAAAGGACCGCTGCCTTAGAACCGCGTATG  
CAACCTGTAAAGCTGATGAGCCTTCTGTTGAAGAAACCATTA CTATTTTGAAGGTAT CCAAAAAAATACGAAGATTATCATCATGTAAAAATAT  
AATAATGATGCCATAGAAGCAGCTGCACTACTATCTAATCGTTATATCCAGGACCGCTTTTTTACCTGATAAAGCAATAGACTTATTAGATGAAGCT

GGTCTTAAATGAACCTAACACTAAATTTTGGTGTATCCAAAAGAAATTGATCAACGTCTCATTGAAGCAGAAAATTTAAAGCGCAAGCGACTCGT  
GAAGAAGATTACGAACGTGCAGCTTACTTCCGTGACCAGATTGCAAAATATAAAGAAATGCAACAACAAAAGGTCGACGATCAAGATACACCTATT  
ATTACCGAAAAACAATTTAGCAGCATCATTTGAAGAAAAACGAATATCCCTGTTGGTGAATTTAAAGAAAAAGAACATCTCAATTAATTAATCTC  
GCAGATGACTTGAACAACATGTGATCGGCCAGGATGACGCTGCTGTTAAGATTGCAAAAGCTATTTCGTGTAATCGAGTTGGTCTTGGTAGCCCA  
AACCGTCTTATTGTTCTCTTTTATTTGGTAGGACCAACCGCGGTGGTAAACCTTTCTTAAACCACTAGCAATCTTCTCAGCCCTGAATTT  
GATAGTATGATTCTGTTTGTATATGTGAGGTACATGGAAGCATGCTGTTGCTAAATTAGTCGAGCGCCTCCAGGATACGTGGGATACGAGGAA  
GCTGGACAATTAAGTAAAGGTTCTGTCGAAATCTTACTCGCTCATCTCTTAGATGAAATTGAAAAAGCTCATCTGATGTATGATATGTTT  
TTGAGGTCCTTGTATGACGGTCGATTACAGATGGACAAGGAAGAACTGTTAGTTTAAAGATACCATATCATGACCTCAAATGCTGGTTCT  
GGTAAACTGAAGCAAGCGTTGGCTTTGGTGCCCTCAGGAGAAGGTAGAAGCAATCCGTTACTAGGTCACTAGGTAATCTTCTCAGCCCTGAATTT  
ATGAACCGCTTTGACGGTATTATTGAATCAAGGCTTTAGATAAAGAGAATCTCCTCAATATCGTTGATATTATGTTATCTGACGTTAATGCACGT  
CTCGCCATCAATGGTATTCTAGATGTCACTGATAAAGTGAAGAAAAATTTGGTTGATTTAGGTTACGATCCCAAAATGGGAGCAGCTCCATTA  
CGTCGTACCATTAAGAACAATATTGAAGATGCTATCACAGATTACTATCTTGGAGAATCCAAGCGAAAAAGAACTTCGTGCTATTATGACTAGCAAT  
GGAATATCATAATAAAATCTTCTTAAAAAACTGAAGAAAGTACAAAAGGT

## SEQ ID 256

MLCQNCNKLNESTIHLTYTNVNGKQKQVDLCQNCYQIIKTPNNPLFSGNLHVSHAPGGINPFDDFFDGLNNFRAFNGQDLPNTPTQSGGNRGGGN  
GNRNNNRNQTATPSQAKGILEEFGINVTEIARHGDDIDPVGIRDSERIIRVIELNRRTKNNPVLIGEPVGKTAUVVEGLAQKIVDGNVPHKLQKQ  
VIRLDVSLVQGTGIRGQFEERMQKLMEEIRQRQDVILFIDEIHEIVGAGTAGEGSMDAGNLIKPALARGELQIVGATTLNEYRIIEKDAALERRM  
QPVKVDEPSVEETITILKGIQKPYEDYHHVKYNNDABAAAVLSNRYIQDRFLPDKAIDLDEAGSKMNLTLNFVDPKEIDQRLIEAENLKAQATR  
EEDYBRAAYFRDQIAKYKEMQKQKVDQDTPPIITEKTIIEHIEEKTNPVGDLEKEBQSQQLINLADDLKQHVIGQDDAVVVKIAKAIIRNRVGLGSP  
NRPIGSLFVGPPTGVGKTELSKQLAIELFGSADSMIRFDMSEYMEKHAVAKLVGAPPGYVGYEAGQLTEKVRNPYSLILLDEIEKAHPDVMHMF  
LQVLDDGRLTDGQRTVSKFDITIIIMTSNAGSGKTEASVGFASREGRNTSVLQGLGNFFSPEFMNRFDGIIEFKALDKENLKHIVDMLSDVNAR  
LAINGIHLDDVLDGYPDKMGARPLRRTIQEHIEDAITDYLENPSEKELRAIMTSNGNIIKSSKTEESTKG

## SEQ ID 257

ATGCTGTGTCAAAATTTGAATTTAAACGAATCTACTATTATCTTTATACAAGTGTAAATGGAACAAAGACAGGTTGATCTCTGTCAAAATTTGT  
TATCAATCATGAAATCCGATCTCGCAATTTCTATTTTAAATGGCCTAACCCAGGATATAGAGCACAAGATAGATCCACAAGTCTCTTCTTTGT  
GACTTTTGGTGTGTAATTTAGAGCTTTGGTAATCTTCCAAATACCCCTACTCAGGCAGGGCAAAATGGAAATGGCGAGGACGC  
TATGGTGGTAACATAACGACACACGACCTGCTCAGCCACAAACACCAATCAGCAAGCAAAGGGCTTGTAGAGAGTTTGGGATTAATGTACA  
GATATTGCAAGAAATGGTAATATTGATCTGTTATTGGTGTGACGAAGAGATTACACGCGTTATCGAGATCTCAACCGCGCTACTAAAAATAAT  
CCTGTGCTAAATGGTGAGCCTGGAGTTGGTAAACTGCTGTTGTAGAAAGTTTGGCTCAAAAATTTATGATGGTACTGTTCTCAAAAATCTCAA  
GGCAAGCAAGTGATCTGCTTTGATGTGGTGTAGCTCTGTTGAGGAAACAGGATATCCGTTGCTCAGTTTGAAGAGCGCATTAATTTGGAAGAA  
ATTCGCAATCGCAAGGATGTGATTCTCTTTATTGATGAAATTCATGAGATTGTGCGGTGCTGGTCTGTCAGGAGACGGCAATATGGATGCTGGTAAT  
ATTTTAAACAGCCTTGGCCCGTGGTGTGAGTTGCAACTGTTGGTGCTACTACATTAATGAATACCGTATTATTGAAAAAGACGCTGCTTAGAA  
CGACGTATGCAACCCGTTAAAGTTGATGAACCTTCTGTTGAGGAAACCATCACGATTTTAAAGGTATCCAACCGAAATACGAAGACTATCATCAT  
GTCAAATATAGCCACCGCTTATGAAGCTGCCCTATTATCTAAGCCTATATTCAAGACCGTTTTCTTCTGATAAGGCTATTGACCTTCTG  
GACGAAGCTGGTTCCAAATGAATCTAACCCCTCAACTTTGTGATCTTAAAGAAATTGACAAACGCTCTTATTGAAGCTGAGAATCTCAAGGCGCAA  
GCTACTCGAGACGAAGACTATGAACGCGCAGCTTATTTCCGCGATCAAATTACAAATACAAAGAAATGCAGGCTCAAAAAGTCGATGAGCAAGAT  
ATTTCCATCATTTACTGAAAAAACCATTTGAAGCTATTGTAGAGCAAAAACCTAATATTCCAGTTGGGGACTTAAAGAAAGGAACAGCTCTCAACTC  
GTAAACTTAGCCATGATCTGAAGACACAGCTGATCGGGCAAGCAGGATGCTGTTGATAAAATCGCTAAGGCTATTCTGCTGAACCGTCTGGGATTA  
GGAATCCAAATCGCCCTATTGGTTCTTTCTTATTCTGTTGACCGACTGGGGTTGGTAAACTGAATGTCTAAACAACCTAGCCATTGAACCTTTT  
GGTTCGACAAACATATGATTGCTTTGACATGTCCGAATACATGGAAGAAACAGCTGTGCGCCAAATAGTCGGGGCTCCTCCAGGTTATATCGGC  
TATGAAGAGCTGGACAGCTAACCGAACAGGTTGTCGCAATCCATATTCACTATTCTCTTAGATGAGGTGGAAGAAAGCCCATCTGACGTCATG  
CATGTTCTTACAAGTTCTTGATGATGGCGTTTACAGATGGCTCAAGGACGAAACAGTCAGGCTTCAAGGACCACTATTATCATGACCTCTTAAT  
GCCGGAACAGGTAAGGCGAAGCTTCTGTGCGGATTGGTGCTGTAGAGAAGGACGGAACAGTTCTGTCTTGGTGAATTAAGCAACTCTTCTCAGC  
CCAGAGTTTATGAATCGTTTCGATGGTATTATTGAATTCAGGCTTTATCTAAAGAGCATTGTGTCATATCGTTGATTTAATGCTGGAAGATGTT  
AATGAGCGCTTAGGCTATAATGGGATTCATCTTGTGATGTGACACAAAGGTCAGAGAAAAATTAGTAGATTAGGCTATGATCTTAAATGGGCGCT  
CGCCGCTCCTGCTATCTTCAAGATTATATCGAAGATGGCCATTACAGACTATTATTAGAACACCCAACTGAAAAACAGTTACGTGCACTGATG  
ACAAACAGTGAAATATCACGATTAAAGCTGTTTAAAGAGGGAGATTTCTTCTTAAACGAAGAGTCTCTCGAT

## SEQ ID 258

MLCQNCNKLNESTIHLTYTVNGKQKQVDLCQNCYQIMKSDPANSILNGLTPGYRAQDRSTSPFFDDFFDGLNNFRAFNGNLPNTPTQAGQNGNGGGR  
YGGNYNGRPAQPPQPNQAGKGLLEEFGINVTDIARNNGNDIDPVGIRDSERIIRVIELNRRTKNNPVLIGEPVGKTAUVVEGLAQKIIDGTVPKQLQ  
KQVIRLDVSLVQGTGIRGQFEERMQKLMEEIRNRQDVILFIDEIHEIVGAGTAGEGSMDAGNLIKPALARGELQIVGATTLNEYRIIEKDAALERRM  
RRMQPVKVDPSVEETITILKGIQKPYEDYHHVKYSPAAIEAAHLSNRYIQDRFLPDKAIDLDEAGSKMNLTLNFVDPKEIDKRLIEAENLKAQ  
ATREDYERAAAYFRDQITKYKEMQAQKVDQDPIITEKTIIEATVEQKTNIPVGDLEKEBQSQQLVNLANDLKAHVIGQDDAVVVKIAKAIIRNRVGL  
GTPNRPIGSLFVGPPTGVGKTELSKQLAIELFGSTNNMIRFDMSEYMEKHAVAKLVGAPPGYVGYEAGQLTEQVRNPYSLILLDEIEKAHPDVM  
HMFQVLDDGRLTDGQRTVSKFDITIIIMTSNAGTGKSAVSGFASREGRNTSVLQGLGNFFSPEFMNRFDGIIEFKALDKENLKHIVDMLSDVNAR  
NERLGYNGIHLDTQKVKELVDLGYDPKMGARPLRRTIQDYIEDAITDYLEHPTKQLRALMTNSENITIKAVKEGDSFLNEESLD

## SEQ ID 259

ATGTCAATGAATTTTTCATTTTACCACAATATTGGTCTTATTTAATATGGTGTGATGGTAACCATATGATTTCAACATGTGTTGTTTTTTT  
GGAATATTATAGGTGTGTTAATTGCTTTAGTAAAGCGTACTAATTTACATTTTCTCACAATATTAGCTAATTTCTATGTATGGGTATTTCGTGGG  
ACACCGATGGTATGTTCAAAATTATGATTGCTTTTCGATGATGCTAATTTTAAACAAATGATGCTTTGGTGTTTAGATTTTAGATTTTACA  
CGACTTTTACCTGGTATCATTATCATTTCTTAAATAGTGGTGCCTATATTTTCGAAATTTGTACGTGCAGGGATTGAGGCTGTACCATCTGGACAA  
ATAGAAGCAGCTTACTCGTTGGGGATTGCACTTAAATAACATCTCGCTATGTTATCTTACCCCAAGCTTTTAAAAATATTTTACCTGCTCTAGGG  
AATGAATTTATTACAATTTTAAAGATAGTGCTCTCTTCAAACTATTGGTGTGATGGAATTTATGGAACGGAGCACATCAGTTGTAACGGCTACT  
TACTACCAAGTTGCACGTTTATTATTGTCAGCATTTTACTATTTAATGTTGACACAGATTCTCTCAGCTTTGTTAAACAAATGGAGAAATATCTT  
GGGAAAGGGGTAAAAATAGATGGT

## SEQ ID 260

MSMNFSFLPQYWSYFNYGVMTIMISTCVVFFGTIIGVLIALVKRTNLHFLTILANFYVWVFRGTPMVVQIMIAFAWMHFNLPITISFVLDLDF  
RLLPGLIIISLNSGAYISIVRAGIEAVPSGQIEAAYSGLIRPKNTLRVILPQAFKNILPALGNEFITIIKDSALLQITIGVMBLWNAQSVVTAT  
YSPVAPLLFAAFYIIMLTITLSALLKQMEKYLGRGVKIDG

## SEQ ID 261

ATGGATTTGTCAATTTTGGCCAAATACTGGGCTACTTTAACTACGGTGTACTTGTCAACCATATGATTTCACTCAGCGTTGCTTTTTTGGAAACC  
CTTATTGGTGTCTTGGTAACCTGATTAAAGCGTAGCTGTAAGCCGTTGACCTGGGTCGTTAATCTTACGTTTGGATCTTTCCGGGAACACCT  
ATGGTGGTTCAAACTAGTATGCTTTGCTTGGATGCAATTTTAAACAAATAGCTTACTATTGGTTTGGGTTTGGATCTTCAAGACTA  
CTTCTCGAATATTATCATTTTCAATGAATAGCGGTGCTTATTTTTCAGAAATTTGTAGAGCAGGATTGAGGCTGTACCAAAAGGGCAATTAGAA  
GCAGCTTATTCTAGGTTATCTGCTCTCAAAATGCCATGCGTTATGTTGATTTTGCCTCAGGCTTTAAAAATATTTTGGCAGCCTTAGGAAATGAA  
TTTATTACCATTTAATAGGATAGTGCTCTTTTACAACCATTTGGAGTGATGGAACCTTTGGAATGGTGGCAATCGGTGGTAACGGCTACTTATCT



CCAATTTCCCTTTACTGGTGGCTGCTTTTACTACTTAATGGTCACAACAGTGATGGCACAGTTATTGGCAGCTCTAGAACGTCACATGGCGCAA  
GGAGGTAATCAT

SEQ ID 262

MDLSFLPKYWAYFNYGVLVTIMISVSVVFFGTGLIGVLVTLIKRSHVKPLTWVNLVYVWIFRGTPMVVQIMIAFAWMHFNMMPTIGFVGLDLDFSRLL  
LPGIIISLNSGAYISEIVRAGIEAVPKGQLEAAYSLGIRPQNAMRYVILPQAFKNILPALGNEFTIIKDSALLQITIGVMBLWNGAQSVVTATYS  
PISPLLVAAFYLMVTTVMAQLLAVLERHMAQGGNH

SEQ ID 263

ATGTCCTCATATGAATTATAAAGAGATTATCAAGAGTGGTTAGAAAACGACTCAGTCGGTAAAGATATTAAGTCAGATTTAGAAGCTATTAAAGGC  
GATGAATCTGAAATTCAGGATCGTTTTTACAAAACATTAGAATTTGGAACGGCGGGATTGAGAGGTAAACCTGGAGCAGGAACCAATCGTATGAAT  
ACTTATATGGTGGGGAAAGCAGCACAGCATTAGCTAATACGATTATGATCATGGCCCTGAAGCTATTGCACGTGGAACTGAGTCTAGTTATGAT  
GTCCGTTATCAATCTAAGGAATTTGCAGAAATTAAGTGTCTTCCATTATGGCAGCAAAATGGTATTAAGTCTTATATTTATAAAGGGATTGCGCCCAACA  
CCAATGTGCTCATATGCTATTCGTGCTCTAGGATGTGTTTCGGGTGTGATGATTACTGCTAGTCATAATCCTCAAGCTTATAATGGTTATAAGGCA  
TATTGGAAGAAGGATCTCAGATTTAGATGATTTGCTGATCAAAATGCCAATCATATGGATGCTATAACCGATTATCAGCAAAATTAAGCAAAATA  
CCCTTTGAAGAGGCTCTGGCAAGTGGTTTCGGCAAGTTATGCTGAGAGTATTGAGAAGCATATAAAAAAGAAAGTCTTGGTTTAACTTAAT  
GATACTAATATTGATAAGTCAGTCCGGGTAGTTTATACTCCTTTAAATGGCGTAGGAAATTTACCTGTGCGCGAAGTTTTAAGACGCGGTGGTTTT  
GAAAAATGTTTATGTGGTACCTGAGCAGGAAATGCCCGATCCTGATTTTACACCGTTGGCTATCCAAACCTGAAGTTCTTAAAGCATTTGCCTAT  
TCAGAATCTCTAGGAAAGTCAGTTGATGCAGATATCTTACTTGCCACAGATCCAGATTGTGACCGAGTAGCATTGGAAGTCAAAGATAGTAAGGGA  
GAATATATTTCTTAAATGCTTAAGATGAAGAGGCACTCTTCTTCCAGTATTATTTTTCACACAGTATGTCCTTACGCAATTTGCCACATCATCTT  
GTATTGGTAAATCCATTGTAAGTGGTGTATCTATAAAGTTATTGTCAGATAAATATAATATTGAAACTGTTGAACTTTAAACAGGATTTAAATAAT  
ATTTGTGGAAGAGCTAATGAATATGATATCTCAAAGGATAAACTTATCTCTTGGCTATGAAGAAAGTATTGGTTTTGTATGGCACTTTTGTA  
CGTGATAAAGATGCTGTGAGTGCTTCAATGATGGTAGTAGAAATGACTGCCTATTATAAAGAACGAGGGCAAAACACTTTTACAGCTTTTGCAAAACC  
ATTTACGATAAAATTTGGCTATTACACGAGCGCCAAATTTCTCTTCCAGTATTGAGGGGTGCTGAGGGGCAAGAACGATTAGTCGATTATGAGGAGT  
TTTAGACAGGACCCAAATATTACAAGTAGGTGAGATGACATTGGAGAATTTCTATTGATTTCAAGGATGGTTATAAGGATTTTCCAAAGCAAAATTTG  
TTAAATATTATTTTAAATGAGGGTTTATGATGCTTTAAGGCGCTCAGGACGGAACCTAAGATAAAATGTTACCTTTATACGATTGGTTGTAC  
GAAGCAGATAGTTTATCGAAACTTAATGCAATTGAGTCGGCTTGTGCTGCTAAATGAATAGTACTAAA

SEQ ID 264

MSHMNYKEIYQEWLENDLSLGDIKDLEAIKGDSEIQRDFYKTLFEGTAGLRGKLGAGTNRMNTYVMVGKAAQALANTIIDHGPEAIARGIAVSVD  
VRYQSKFAELTCSIMAANGIKSYIYKIRPTMCSYAIRALGCVSGVMTASHNPQAYNGYKAYWKEGSQLDDIADQIANHMDAITDYQQIKQI  
PFEEALASGSASYIDESIIEAYKKEVLGLTINDTNIDKSVRVVYTPLNGVGNLPVREVLRRRGFENVYVVEPEQEMDPDPFTTVGYPNPEVPKAFAY  
SESLGKSVADILLATDPDCDRVALEVKDSKGEYIFLNGNKGALLSYIIFSRQCALGNLPHHPVLVKSIVTGDLISKVIADKYNIEVETLTGTFKN  
ICGKANEYDIDSKDLYLFGYEESIGFCYGTFFVRDKDAVSASMMVEMTAYYKRGQTLLEDVLQTIYDKFGYNNERQFSLELEGAEGQERISRIMED  
FRQDPILQVGBMTLENSIDFKDGYKDFPKQNLKYYFNEGSWYALRPSGTEPKIKCYLYTIGCTEADSLSKLNAIESACRAKMNSTK

SEQ ID 265

ATGAGTAATATGACTTACAACGAGGTATATCAAGAATGGTTGCACAATAATGATCTTAGTGATGATATTAAAGCAGATTTAGCAGCCATAAAAGAC  
AATGAGGCTGAGATTCAAGATCGTTTTTACAAAACACTTGAATTTGGAACAGCAGGGCTAAGAGGAAACTTGGAGCAGGCACCAATCGCATGAAT  
ACCTATATGGTTGGTAAGGCAGCACAGCTTTAGCTAATACTATTATTGATCATGGACCTGAAGCGGTTAAAGAGGCAATTCGCGTTAGTTATGAT  
GTTCCGCTATCAATCTAGAACATTTGCAGAAATTAACATGCTCTATTATGGCAGCTAACCGTTATTAAGGCGTACCTTTATAAAGGGATTGCGCCAACA  
CCAATGTGTTTCGTACGCTATTCGTGCTTTGGGATGTATTTCTGGTGTATGATTACGGCTAGTCACAATCCCCAAGCTTACAATGGTTACAAGCT  
TATTGGCAAGAAGGTTCTCAAATTTTGGATGACATGCGGATCAATGCTAACAACAGTATGCTAACAATGCTGCACTAAGTATCAGGAAATCAACAAATG  
CCTTTTGAAGAGGCTCTGGACAGTGGACTTGTACTTATATTGATGAGAGTATTGAAGAAGCATATAAAAAAGAAAGTCTTGGTTTAAACGATTAAT  
GATACTGACATTGATAAGTCAGTCCGAGTAGTCTATACCCCTTTAAATGGTGTGGGAATCTACCAAGTGGTGGAGGTTTTAAGACGCGCGGTTTT  
GAAAAATGTTTATGTGGTACCTGAGCAGGAAATGCCCGATCCTGATTTTACAACAGTTGGCTATCCTAATCCCCAAGTCCCTAAACCTTTTGCATAT  
TCGAAAAATTAGGATAGGCAAGTGTAGTCTGATATTTGATTGCACTGATCCAGATTGTGACCGTGTGGCTTTAGAAGTTAAAAATGCAGTCCGT  
GACTATGTTTTTCTCAATGGCAATAAAATCGGAGCGCTTTTACTTACTATATCTTTTCAACAGATTGACTTAGGCAATTTACCGGCTAATCTCT  
GTTTTAGTGAATCCATTGTAACAGGAGACTTGTACGGGCTATTGCTAGCCATTATGGTATTGAAACCGTTGAAACATTGACTGGTTTTAAGAAT  
ATTTGTGGCAAGGCAACGAATATGATGTGACGAAACAAAAAACTACCTGTTTGGTTATGAAGAAAGTATTGGTTTTGTCTATGGCACTTTTGT  
CGTGCAAAAGACGCTGTTTACCGCCCTCTATGATGATTGTGACCTGAGGAGTACGAGGATAGAGGACAAAAACGATTGCGAGGATATGGAAGAT  
ATTTATGCGACATTTGGGTATTATAATGAACGCTCAAATTCGCTTGGAGCTTACGAGGATAGAGGACAAAAACGATTGCGAGGATATGGAAGAT  
TTCAGACAGACACCAATAGCTAGTGTGACAGAGATGGCGTTAGACAAGACAATTGATTTTATTGATGGCTATCAAGATTTTCAAAGCAAAACTGT  
CTCAAATTTTATTGGATGATGGTTCTTGGTATGCACTTAGACCATCAGGAACAGAGCCCTAAAAATAAAATTTTATTATATACTATTGGCCAAACA  
CAAGAAAAATAGTGCAACAAAATAGATGCTATTGAAGCAGCGTTCGCACAAAAATAATCAGGTTAAT

SEQ ID 266

MSNMITYNEVYQEWLHNNLSDDIKADLAAIKDNEAEIQRDFYKTLFEGTAGLRGKLGAGTNRMNTYVMVGKAAQALANTIIDHGPEAVKKGIAVSVD  
VRYQSRFFAELTCSIMAANGIKAYLYKIRPTMCSYAIRALGCTSGVMTASHNPQAYNGYKAYWQEGSQLDDIADQIAQHMAALTQYQEIQKM  
PFKALDSGLVITYIDESIIEAYKKEVLGLTINDTDIDKSVRVVYTPLNGVGNLPVREVLRRRGFENVYVVEPEQEMDPDPFTTVGYPNPEVPKTFAY  
SEKLGKAVDADILATDPDCDRVALEVKNAVGDYVFLNGNKGALLSYIIFSRQFDLGNLPAANPVLVKSIVTGDLISRAISHYGIETVETLTGTFKN  
ICGKANEYDVTQKQNYLFGYEESIGFCYGTFFVRDKDAVSASMMIVEMAAYYKKKGQNLLEDVLQTIYATFGYNNERQIALELEGIEBQKRIARIMED  
FRQTFIASVAEMALDKTIDFIDGYQDFPKQNLKFLYLDGGSWYALRPSGTEPKIKFYLYTIGQTQENSATKLDAIEACRTKINQVN

SEQ ID 267

ATGACTGAATTAATAGATGGTAAAGCCTTATCACAATAATGCAAGCTGAGTTAGGGCGAAAAGTTGAAAGGTTAAAGGAACAGCATGGTATCATA  
CCTGGTTTACTGTGAATCCTTGTGGGGATAATCCAGCTAGCCAGTGTACGTTGAAATAAAGAACGCTCTGCATTAGAAGCTGGTTTTTAAAGT  
GAGACTCTAGCATATCTGAATCCATTTCTCAAGAAGAACTGATTGATATATCCATCAATCAATGAAGATAAAGTATCCATGGTATTTAGTT  
CAACTCCGTTACCAACATATTAACGATAAAAAAATTTATTTAGCAATAGATCCTAAGAAAGATGTTGATGGTTTCCACCCCAATGAATACGGGT  
CATCTTTGGTCAGGACAGCATGATGGTACCTTGTACGCCAGCTGGTATTATGGAGATGTTTAGAGAGTACCATGTGGATTAGAGGGAAAAACAT  
GCTGTTATCATCGGAAGGTCCAATATTGTTGGTAAGCCAAATGGCACAACTTCTCCTTGATATAAAGACGCAACAGTTACTTTGACACATTTCAAGAACT  
CGAAACCTTTCTGAGGTAAACAAAGGAGGCTGATATCTTATTGTTGCGATTGGTCAGGGGCACCTTTGTTACAAAAGACTTCGTTAAAGAGGTGCT  
GTGGTGATTGATGTTGGTATGAATCGCGATGAAAATGGTAAATGATTGGAGACGTTGATTTTGAACAGTGGCAGAAGTTGCTAGTATGATAACA  
CCTGTTCTCGGGGCGTAGGACCTATGACGATTACAATGCTTTTGAACAAACTTATCAAGCAGCTCTTAGAAGTGTGAGTCTA

SEQ ID 268

MTELIDGKALSQKMQAELGRKVERLKEQHGIIPGLAVILVGDNPASQVYVRNKRSALEAGFKSETLRLSESISQEBELIDIIHQYNEDKSIHGILV  
QLPLPQHINDKKIILAIDPKKDVDFGHPMNTGHLWSGRPMMPVCTPAGIMEMFREYHVDLEGHKHAVIIGRSNIVGKPMALQLLDDKNATVTLTHSRT  
RNLSEVTKEDAILIVAIGQGHFVTKDFVKEGAVVIDVGMNRDENGKLIIGDVVFEQVAVASMTFVPGVGPMTITMELLEQTYQAALRSVSL

SEQ ID 269

ATGTCAATGACAGAACTAATGATGGTAAAGCCTTAGCTCAAAGATGCAACAAGAGTTAGCAGCTAAAGTCAACAATCTAAAACAAAAAAAGGA  
ATTGTACCAGGCTTAGCCGTTATCTTGTAGGTGATGATCCTGCTAGTCAGGTGATGTCCGTAATAAAGAGCGTGCAGCTCTTACTGTAGGTTTT  
AAAAGTGAGACCGTTAGATTATCAGAAATTCATTGTCAAGAAGACTTATGTCAGTAATCGAACGTTACAATGCAGATAACACTATTTCATGGTATT

TTAGTGCAGCTACCCCTGCCAAATCATATTAAATGATAAAAAAATTATTCTCGCCATTGATCCCAAAAAGATGTGGATGGTTTTACCCGATGAAT  
ACAGGTACACCTTTGGTCAGGACGTCCTTGTATGGTTCCCTTGTACTCCATCAGGGATTATGGAATTGCTTCGAGAAATATAATGTTAACCTTGAAGGT  
AAACATGCCGTCATTATTGGCAGATCGAATATCGTTGGAAAAACCAATGGCACAGCTCTTACTGGACAAAAATGCAACAGTTCACGTTGACACATTCA  
AGAACACGTCGAATTAGAAGAAGTATGTCGCTGTGCAGATGTGTTGATTGGGCAATCGGACAAAGGTCAATTTCATAACAAAAAATATATAAAGAT  
GGTGCAGATAGTATTGATGTAGGAATGAACCGTGTATGATAATGGCAAGCTAATTGGAGATGTGGCCTTTGATGAGGTGGCAGAAATGTCAGCGAAA  
ATCACCCCTGTACCAGGAGGTGTCGGTCTTATGACGATTGCTATGTTGCTAGAGCAAACCTTATCAATCTGCTCTCCGTAGTACTCATAAA

## SEQ ID 270

MSMTBLIDGKALAQKMQQRLAAKVNNLKQKKGIIVPGLAVILVGDPPASQVYVRNKERAALIVGFKSETVRLSEFICQEELIAVIERYNADNTIHGI  
LVQLPLPNHINDKKILILADPKKDVGDFHPMNTGHLWSGRPLMVPCTPSGIMELLREYNVNLEGHKHAVIIGRSNIVGKPMQQLLDKNATVTLTHS  
RTRQLEEVCRCADVLIVAIGQGHFITKQYIKDGAIVIDVGMNRDDNGKILIGDVAFDEVAEVAAKITPVPGGVGPMTIAMLLEQTYQSALRSTHK

## SEQ ID 271

ATGATTGTTGGTGAACAAGAAGCGAGGGCGTTAATTAAGCCACGCCATAAAGGTGATTATGGTAGTGTCTCTCTGATAGGAGGT  
TTTTATCCCTATGGAGGTGCTATTATAATGGCAGCTTTGGCCTGTGTCAAAACCTGGTCAGGATTAGTTACTGTAGCAACCCAAAGTTGCAATATC  
CCCTCTTTGCATAGTCAACTACCAGAGGTAATGGCGTTTGATAGTGATGATTACAAATGGTTGGAAAAATCAATTGTTCAAGTGATGTTATTGTA  
ATTGGTCCTGGATTAGGAGTATCAGAATCATCTCGAAAAATTTTGAACAGACCATGGAGAAGATTCAATCACATCAAAAGTGTATCTTTCAGCGGA  
TCAGCCTTGACTCTGTTATCAGAAGGTGCGTTTCCGCAAAACAAAGGCTAAAAAATTAGTGTGACACCTCATCAAAAAGAAATGGGAGCGATTGTCA  
GGTATCGCTGATCGCAACAGACAAAAAGAAATACCCAAACCGCTCTTAAATCTTTCCCAAAGGACGATTTTAGTCGCTAAGAGTTTCGCATACG  
CGTATTTTTCAAGATTTAGACGAAAAAGAAATATAGTAGGAGGCTTCTTACCAGCGACTGGAGGGATGGGGGATCTTTGTGTGGTATGATTGCA  
GGTATGTTAGCGCAATTTAAAGAAGCCTCTCTCTAGATAAGGTATCAGTGGGAGTTTATCTACATTTCGCAATTGCTCAAGGATTATCTAAAGAA  
GCCTATGTTGTTCTACCGACAACGATTAGTGATGAGATTCCAAAAGAAATGGCTAGACTATCTAAA

## SEQ ID 272

MIVGEQEARALIKPRPKSSHKG DYGSVLLIGGFYYPYGAI IMAALACVKTGAGLVTATQSCNIPSLHSQLEPVMFAFSDDYKWLKESIVQSDVIV  
IGPGLGVSESSRKILNQTMKEIQSHQSVILDGSAITLLSEGAFFQTKAKNLVLTPHQKEWERLSGIAVSQQTKEQTALKSFPGKTIILVAKSSHT  
RIFQDLDEKBIIVGGPYQATGGMGDTLCGMIAGMLAQFKEASPLDKVSVGVYLHSAIAQGLSKEAYVVLPTTISDEIPKEMARLSK

## SEQ ID 273

ATGTCAGACTATTATCCGTGTCGACACTGACTAAGTATTTAAAAATTAAAAATTTGACAAAGACCCCTTATTAGAGAGGGTTTATTTAACTGGGCAA  
GTGTCTAATTTTCGTCGTCGCCCCAAACCATCAATATTTCTCTTTAAAGATGATAAATCAGTCATTACGGCGCAATGTGGTCAGGTCACTTCAAAA  
AAATGGGTTTGAATTAGAGGAAGGGATGAAGGTTAATGTAGTTGGCCGTGTTCAACTTTATGAACCAAGCGGCTCTACTCTATTATTGTTGAA  
AAAGCAGAACCGGATGGTATAGGAGCTCTTGCTATCCAATTTGAACAACCTAAAGAAGAACTCTCTCAAGCAGGTTATTTTGATGATCGTCATAAG  
CAATTAATTCCTCAATTTGTTAGAAAAATAGGAGTTGTGACTAGTCCAGTGGAGCCGTTATTTCGGGATATTATTACAACAGTATCTCGTCGATT  
CCAGGAGTGGAAATATTACTTTTCCCACAAAAGTTCAAGGAGAGGGCCGAGCTCAGGAAATAGCACAACTATTTGCTTTAGCTAACGAGAAAAAG  
GATTTGGATCTATTAATTTGTTGGCCGTGGGGGAGGTTCTATTGAGGACTTATGGGCATTTAATGAAGAATGTGTTGTAGAAGCTATTTTGAATCT  
CGTCTTCCCGTTATTTCTAGTGTGCGACATGAACTGATACAACCTTTAGCAGATTTTGATGACCGATCGCAGAGCAGCAACTCCAAGTGCAGCAGCT  
GAGCTTGCTACACCGGTTACTAAAAATGATATCTTGTCTTGGATTGACTGAACGTTGAAATAGAATGTATCAGTCTAGCCTTCGCTTATCAGGACA  
AAGAGGAGAGGGTTGCLAAFAATCAAAGCAATCAGTTATTGATTGACCAACGAGCGCTCATATGATGGTTTCTTCAAAAATTAGATAAAGCTTAAAT  
CAGCAGTTAATATATTCTATGCGTGATAAACTACAAACAGTAAGACAAAAAGCAAGGTTTGGCTTATCAAAAATGCAAGGCATAGATTAAAAACAG  
CGTATTCATATTTACCAAGAGCGGTGTTGTGCAAGTAGACGACTATTATCAAGTACAATGACTAGTCAGTATGACAGCAGAGCTAGCACGTTTGA  
AAGGCTCAAGATGCGCTTATATCATTGGATAGTTCTAGAATTGTAGCGCGTGGTTACGCTATTATCGAAAAAACCATCTTTAGTATCTACTACT  
AATGGAATAAATGAAGGAGATCATTTGCAAGTTAAGATGCAAGATGGTCTTTTGAAGTTGAGGTGAAGGATGTGACAGCAAGAAAAACATT

## SEQ ID 274

MSDYLSVSTLTLYKLKLFKDPYLERVYL TGQVSNFRRRPNHQYFSLKDDKSVIQATMWSGHFKLGFLEEGMKVNVVGRVQLYEPSPGSYSIIVE  
KAEPDGI GALAIQFEQLKKKLSQAGYFDDRHKQLIPQFVRKIGVVTSPSGAVIRDIIITVSRFPFGVEILLFPKTVQGEAGAAQIQAQTIALANEKK  
DLDLLIVGRGGGSIEDLWAFNEECVVEAIFESRLPVISSVGHETDTLLADFVADRRRAATPTAAELATPVTKIDLWSWITERENRMYQSSRLRLIRT  
KEERLQKSKQSVIFRQPERLYDGLFQKLDNLNQQLTYSMRDKLQTVRQKQLLHQKLGIDLKQRIHIYQERVVQSRRLSSMTS QYDSKLARFE  
KAQDALISLDSSRI VARGYAIIEKNHTLVSTTNGINEGDHLQVKMQDGLLEVEVKDVRQENI

## SEQ ID 275

GTGAAAGGTGGCTTGATGGCAGATTATTTAACCCTCACTCAATTTGACGAAATATTTAAAAATTAAAAATTTGACCGTGACCCCTTATTGGAAACGGGTT  
TATCTGACTGGTCAAGTGTCCAATTTTCGAAAAACGACCACTCATCAATATTTTCTTAAAGATGAAAGTGTGTGATTCAAGCCACCATGTGG  
GCAGGAGTCTATAAAAACTAGGATTGACCTAGAAGAAGGCATGAAAAATTAATGTAATTTGGGCGAGTCCAACCTTTATGAACCTAGTGCTCTTAC  
TCTATCGTGATTGAAAAGGCAGAGCCAGATGGTATAGGTGCTTGGCTTTGCAGTTTGAACAATTAAGAAAAAATTAACGGCAGAGGTTATTTT  
GAGCAAAAACACAAGCAGCCCTTGCCACAGTTTGATCAAAAATTTGGGGTCATTACAAGTCTTAGTGGTGTGTGATTGAGATATTATCACAAACC  
GTTTCAGCGCGTTTTCAGGGGTTGAGATTTTATTATCCCACTAAAGTACAAGGTGATGGAGCCGCCCAAGAAGTAGTGGCTAATATTTGAAAGA  
GCCAATCAAGAGAGGATTGGAATTTGCTCATTGTGCGCCGTGGAGGTGGCTCGATAGAAGACCTTTGGGCTTCAACAGGAGAAATAGTGGTTGAG  
GCTATCTTTGAATCGCAACTTCCAGTGATTTCGAGTGTGGGTGATGAAACAGACACGACTTTAGCGGATTTTGTGGCAGATCGCAGAGCAGCCACA  
CCAAACAGCAGCAGCAGGTTAGCAACGCCCTATTACAAAAACAGATCTTATGCTTTGGATAGTAGAGCGGCAAAATCGTTCTATCAGGCTGCTT  
AGGCGGATTAAGCAAGCGCAAGAGTGGGTGATAAATCTCGCAATCTGTTATTTTAGGCAACCAGAACGATTATATGCTACCTGCAAAAAA  
ATTGATCGCCTTAGCATGACCTGATGAATACGATGAAAGATCGTCTGAGTTCCGCCAAAGAAAAAGGTTTCAGTTGGACCATGCTTGGCCAAAT  
AGTCAATTACAGACAAAAATCGAGCGATACCAAGACCGTGTGTACCGCTAAGCGTTTACTGATGGCTAATATGGCTAGTCAATATGATAGTCAG  
CTGGCTCGCTTTGAAAAAGCAGGATGCTTTGCTATCACTGGATGCCAGCCGAATTATCGCCCGTGGTTATGCAATGATTGAAAAAATCAAGCA  
CTGGTAGCCTCTGTAAGTCAGATAACAAAGGATGATCAGTTAACCATTAAGATGCGTGATGGACAATTAGATGTAGAGGTAAAGATGTCAAAAAA  
GAAAAACATT

## SEQ ID 276

VKGLMADYLTVTHLTLYKLKLFDRDPYLERVYL TGQVSNFRKRPTHQYFSLKDES AVIQATMWAGVYKLGFDLEEGMKINIVGRVQLYEPSPGSY  
SIVIEKAEPDGI GALAIQFEQLKKLTAEGYFEQKHKQLPQFVSKIGVITSPSGAVIRDIIITVSRFPFGVEILLFPKTVQGDGAQEVVANIRR  
ANQREDLLIVGRGGGSIEDLWAFNEEIVVQAIFESQLPVISSVGHETDTLLADFVADRRRAATPTAAELATPVTKIDLMSWITERQNSRYQACL  
RRIKQRQEWVDKLSQSVIFRQPERLYDAYLQKIDRLSMTLMNTMKDRLLSSAKENKVQLDHALANSQQLTKIERYQDRVATAKRLLMANMASQYDSQ  
LARFEKAQDALLSLDASRI IARGYAMIEKNQALVASVSQITKGQDLTIKMRDGLDVEVKDVKNENI

## SEQ ID 277

ATGTGACACAAGAAAAACATTTGAAGAAAAATTACAGGAATTAGAGACAATTGTCTCACGTTTAGAAACAGGTGATGTTGCCTTAGAAGATGCCATT  
GCTGAATTTCAAAAGGAATGCTTATTTCAAAAGAGTTACAAAGAACTTTAAAGAAGCTGAAGAGACGCTTGTAAAAGTGATGCAAGGTGACTGGA  
ACGGAAGTAGAAATGGATACT

## SEQ ID 278

MSDKKTFEENLQLELETIVSRLETGDVALEDAIAEFQKGLISKELQRTLKEAETLVKVMQADGTEVEMDT

## SEQ ID 279

ATGTCAAAAAAGAAAACATTTTGAAGAAAATTTACAAGATTTAGAGACTATTGTGAACAACTTGAAAATGGGGATGTCCCTTTGGAAGAAGCTATT  
TCAGAATTTCAAAAAGGAATGCTTCTCTCAAAAAGAACTTCAAAAGACCTTACAAGCGGCAGAAAAAACACTCGTCAAAGTGATGCAAGCTGATGGC  
ACAGAAGTAGATATGGATGAT

SEQ ID 280

MSKTKTFEENLQDLETIVNKLENGDVPLEEAISEFQKGMLLSKELQKTLQAAEKT LVKVMQADGTEVDMDD

SEQ ID 281

TTGATGGTTACTATTGAAAAAATTGATGAAGCTATTTCATCGTTATTACAAACAGACACATAGTGTCTGTTTCTCCTGATTGGATTAAGGCTATCCTCTACTCAGTTGATGAGGTTGGGAAACGTAATTCGTCACGCATCCTTTTAGAAATTTAGAGGGATTGGAGATTGAACATAATAGATGGTCATTATGATGTGGCTGCTGCTTTGGAGATGATTCACACCGGCTCATTAATCCATGATGATTTACCGGGCGATGGATAATGATGATTTTCGTCGTGGCCGCTTAACAAACATAAAAGTTTGTAGAGACTACACCGGTTTAGCTGGAGATTCCCTTTTTTTTAGACCCATTGATTTAGTTAGTTGTAAGGCTGGTTTTAAAGCTGATGTTACTGTTAGGTTAATAGAGTTATTGTCCTATGTCGCGGGTAGTTTTGGCATGGTTGGTGGACAAATGCTTAGATAGAAAGGAAAAACAAAGTTTTATCTATTGACGATTTAAGCTTGATTCATATTAATAAAACGGGACGCCTGTTAGCTTATCCCTTTGTTGCAGCAGGTATTTTAGCTGAGAAGTCGGAAGAAGTAAAAGGAAAACTGCATCAAGCTGGCCCTTTAATCGGTCATGCTTTTCAAGTAGCTGATGATATTTTAGATGTGACTGCTAGTTTTGAAGATTTGGGGAAGACACCAAATAAAGACATTGTAGCAGAAAAAGACAACCTTATCCAAATTTATTGGGTTTGGATAAGTACAGGAAATACTTGATGACTAATTTGAAAAAGCTCAGGCAATTTTTCAAATCTAGAGAAAAAGCTAACTTTAATGCTAGAAAAATAATAGATATAATAGAGGGATTACGGTTGAATGGC

SEQ ID 282

MMVTIEKIDBAIHRYRKQTHSVSPDLIKAILYSVDGGGKRIRPRILLEILEGFGVELIDGHYDVAAALEMIHTGSLIHDDLPAMDNDDFRGRILT  
NHKKFDEATAVLAGDSLFLDPFDLVVAKGFKADVTRLIELLSMAGSGFMVGGQMLDMKGENKVLSDDDLHINHNTGRLLAYPFVAAAGILAEK  
SEEVKGKGLHQAGLLIGHAFQVRDDILDVTASFEEKGKTPNKDIAVEKTTYPNLLGLDKSQEILDDTLKKAQAIFQNLKKANFNARKIIDIEGLR  
LNG

SEQ ID 283

ATGGACA AATTAGCTAGAATTGACGAAGCCATTTCGTCGCTACTATAAGACGACTAGTAACGGTGTATCTGAAGAGTTGATTGATGCTATCTTGTAT  
TCTGTTGACAGTGGTGGCAAGCGCATTTCGCCCACTTATCTTATTAGAGATGATTGAGGGATTGTTGGGGTATCGTTACAGAATGCTCATTTTTGATTTC  
GCTGCAGCTCTTGAAATGATTCATACAGGAAGTCTGATTACGATGTTTGCCAGCCATGGATAATGATGATTACCGACGTGGCAGACTGACCAAT  
CACAAA CAATTTGGAGAAGCCACGGCCATTTGGCGGGAGACAGCTATTTTATGACCCCTTTGGGGTAAATAGCTCAAGCTGAATTAATAGTAGG  
GTTAAAGTAGCCTTAATCCAAGAACCTTTCCCTAGCTTCAGAGAACTTTTGGCATGGTGTGGTGCAGATGTTAGATGTTGAAGAGGGGAAAAATCAAGCA  
TTAAGTCTTCCTCAGTTGTCACTGATTCACTCAATAAAACCGGAAAAATTATTAGCTTTTCTTTTAAAGCAGCAGCTCTTATAACAGAACAGGCT  
ATGACTGTTTCGTCAA CAACTAGAGCAAGCGGGAATGCTCATCGGGCAGCGCTTTT CAGATTAGGGATGATATTTTAGACGTGACAGCTAGCTTTGAA  
GATCTTTGGAAAAACGCC TAAAAAGGACTTATTCGCAGAAAAAGCTACTTATCCAAGTTTACTGGGGTTAGAAGCCTCTTACCAACTGCTGACAGAG  
AGTTTAGATCAGGCTTTGACGATTTTTCAGACACTAGAAAGCGATGTAGGCTTTAAGCCTCAATAATTACAAA CTGATAGAAGGGTTACGACTT  
AATGCC

SEQ ID 284

MDKLARIDEAIRRYKTSNGVSEILIDAILYSVDSGGKRIRPLILLEMIEGFGVSLQNAHFDLAAALEMIHTGSLIHDDLPAMDNDYRRGRLTN  
HKQFGEATAILAGDSLFLDPFGLIAQAEINSEVKVALIQELSLASGTFGVMVGGQMLDMKGENQALSPLQSLIHLNKTGKLLAFPPKAAALITEQA  
MTVRQQLQAGMLIGHAFQIRDDILDVTASFEDLGKTPKKDLFAEKATYPSLLGLEASYQLLTESLDQALTIFQTLESVDVGFKPQIITKLEGLRL  
NA

SEO ID 285

ATGGCTAAAGAGAGGGGTAGATGTTCTTGCCTATAAAACAGGGACTTTTTGATACACGAGAGCAAGCGAAACGTGGTGTTATGGCAGGAATGGTGATT  
AACGTTATCAATGGAGAACGTTATGATAAACACAGGTGAAAAGGTTGCAGACGATACTGAATTAACACTAAAAGGTGAAAACTAAAAATATGTTAGT  
AGAGGGTGGAATGAAATTAGAAAAAGCTTTACAAGTTTTTGCAAAATTCAGTTGCAGATAAGCTTAATATAGATATTGGCGCCTCTACGGGGTGGTTTT  
ACTGATGTTATGCTACAACTCAGGAGCGCGTTAGTTTACGCAGTAGATGTAGGAAACAAATCAATTAGTTTGGAAAGTACGTCAGGATCATCGTGTT  
CGTTCTATGGAAACAATAAATTTTAGGTATGCGCCAAAAGAAAGATTTTCAAGAGGGGACTGCCCTGAATTTGCAATCGATAGATGTCTCAATTTATCTCT  
CTTAATTTGATTTTACCAGCTCTAAAAGAAATTTTAGTGGATGGTGGACAAGTAGTGGCATTAAATTAACCAACAATTTGAAGCAGGTCTGTAGCAA  
ATTGTTAAAAATGGTATTGTCAAAGACAAGTTGGTTTCATGAAAAGGTTTTTGACAACAGTGACCAATTTACGAAAGATATGGATATACGGTTAAA  
CATCTTGATTTTTCGCCCAATCAAGGTGGACATGGAATTTAGTTTTTAATGCATTTTGCAAAAGTGTCAAGATCCACAAAATCTTGTGCTTGAC  
CAAAATACAAGATGTTATAGAAAAAGCTACATAAGGAATTTTAGAAAAATTAAGAAATGGAAGAGAG

SEQ ID 286

MAKERVDVLAYKQGLFDTREQAKRGMAGMVINVINGERYDKPGEKVADDTTELKLGKELKYVSRGGLKLEKALQVFEISVADKLTIDIGASTGGF  
TDVMLQSGARLVYAVDVGTNQLVWKLQRDHRVRSMEQYNFRYAQKEDFKGLPEFASIDVSFISLNLILPALKEILDVGGQVVALIKPQFEAGREQ  
IGKNGIVKDKLVHEKVLTTVTNFTKDYGYTVKHLDFSPIQGGHGNIEFLMHLQKQDPQNLVLDDIQDVIEKAHKEFKKNEEE

SEQ ID 287

ATGCCCTAAGAGAAAGAGTAGATGTGTATAGCCTATAAGCAAGGATTATTTGAGACCAGAGAGCAAGCTAAGCGTGGTGTGCATGGCAGGCTTAGTGGTC  
TCTGTGATTATATGCCCAACGCTATAGCAAGCCAGGTGACAAATTTGACGATGGGACTGAGTTAAACCTTAAAGGTGAAAACTCAAATACGTCAGT  
CGTGGTGGTATATAAACTGGAAAAAGGGCTGCACGTTTTTGCTGTATCAGTTGCTTAATCAAATTTGGGATTTGATATTGGCGCTTCAACAGGTTGGTTTT  
ACCGATTTGTATGTATCAAGATGGGGCCAACTAGTCTATGCCGTGACGTTGGGACTAACAGTTGGTATGGAAACTCAGACAAGATCCACGAGTA  
AGAAGTATGGAACAGTATAAECTTTCTGTATGCTCAGCCAGAAGACTTTAATGAGGGACAGCCTGTATTTGCCAGATTGATGTGTGCTCTTTATTCT  
CTCAGCTTGATTTTGCCAGCCCTGCATAACGTTTTGTGATCAGATCAGGGACAGGTTATTGCTCTCATTAAACCGCAATTTGAAGCTGGGCGCGAGCAG  
ATTGGTAAAAAAGGCATCGTCAAGGACAACACGATTATGAAAAAGTGATTCAAAGGTCATGGATTTTGCTCTCAGGTTACGGATTACAGTTAAG  
GGACTTGATTTTCTCTTATTCAGGGTGGTGCATGGCAATATCGAATTTTATGCTCATCTGCTAAGTCAAGACACCTGAAACGTTAGCCCCGCAT  
TTGATTCAGAAAGTTGTGTCCAAAGGCACATAAGGATTTTGAGAAACATGAAAAAGAG

SEO ID 288

MPKERVDVLAYKQGLFETREQAKRGVMAGLVVSVINGQRYDKPGDKIDDGTELKLGKELKYVSRGGLKLEKGLHVFVGSVANQIGIDIGASTGGF  
TDVMLQDGAKLVYAVDVGTNQLVWKLQRDPRVRSMEQYNFRYAQPEDFNEGQPVFASIDVSFISLSLILPALHNVLSDQGQVIALIKPQFEAGREQ  
IGKKGIVKDKQIHEKVIQKVMDFASGYGFTVKGLDFSPIQGGHGNIEFLAHLAKSOTPETLAPHLIQKVVAKAHKEFEKHEKE

SEQ ID 289

ATGAGAAGAGTGAAACGTTTAAATTTAAATTAAAGCAAATTTGTTCTTAACCATGCTGTTGAAACACAACATGAGTTGTTACGCAGATTGGAAGCTTAT  
GGGGTAACCTTAACCTCAAGCAACTATTTCACGTGATTAATGAATGAATTTGGCATTATATAAAGTGCATCAGCAAAAGGTGCGCTATATTTACGGTTTG  
TCTAAATGAAAAACGACCTATCTTTCAACTGCTGCTGGCAAAGCCTATTAAAAACAAGTATTTTTATCAATATCAGATAAGCTACTAGGTTTTAGAGCAA  
TTTATCAATTAATTAATGTATACACAGGTAAACGTCATTAATTAATTAACACCTTCATAATGTCAATGTCATTGTCGAAGAACATATTTTAGTTTACAGCTGAC  
GATAATAGTCTCCTTTTGGATTGCAAAATCAGAAGCAGATGCTGATCACATTCGTCAATCAATGATGTCGAATGTCGGGAAGAAAAAGAT

SEO ID 290

MKKSERLNLIKQIVLNHAVETQHELLRRLEAYGVTLTQATISRDMNEIGIIKVPSAKGRYIYGLSNENDPIFTTAVAKPIKTSILSISDKLLGLEQ  
 FININVIPGNSOLIKTFIMSHCOEHIFSLTADDNSLLLIASEADADHIROSMIAMLEKKD

SEO ID 291

TTGTTGCCAAGGCACATAAGGAGTTTGAGAAACATGAAAAAGAGTGAACGACTTGAATTATCAAAAAAATGGTTTTGACGCATCCAATTGAGACG  
CAACATGACCTCTTAAGATTATTGGCAGAGCATCTGGGTTAGAATTAAACCAGGCTACTATTTCAAGAGACATGAATGAAATGGGTATAGTAAAGATT  
CTTCTGGCAGTGACGCTTACATCTATGCTCTTCAAGATTGTGGAAAAAAGATCGTTCAAGGACCTAGATCGATGAAGAAGCAGCATATTTTAGCT  
GTATCTGACAAAACAAAGGTTTAGAACCAACCTCTTATTTAAAGTCGTACCTGGCAATAGTAAATTATCAACCGTTATTTATTAGCAGATTTT  
TCAAAAGCTATTTTTAGTCTTATTGCTGATGATAGTTTATTGTTAATTGCAAAAGCTCTCTTCAGAAGCAGATATGATACGCCAAGAAATTTTG  
CTTTGGATCGAGGGTATAACC

SEQ ID 292

LLPRHIRSLRNMKKSERLELIKMMVLTHPIETQHDLLRLLAEHGLELTQATISRDMNEIGIVKIPSGSGRYIYGLSQDSGKKIVQGPRSIKSTILA  
VSDKTKGLEQHLYLKVPVPGNSKLIKRYLLADFSKAIFSLIADDDSLLLIAKSPSEADMIRQEILLWMOGIT

SEQ ID 293

ATGGAAGTTTTATCTTCCTTACGTGAAAAAGCAGATTTAATAGCTAACATCAATCGAGATAACTCTCCTCCTGAAGCCACTTTTACCAATGGCTTA  
AAGCCCTCTCCGGGATTCGTTGAAATA

SEQ ID 294

MEVLSSLREKADLIANINRDNSPPEATFTNGLKPSPGFVEI

SEQ ID 295

ATGCTTTTAGAAATTTCTATTAGAATTTTCGCTATTATCGAAGAAATTTCACTTAATTTTGAAAACAGGAATGACTGTTTTAACTGGTGAGACTGGT  
GAAGGGAAATCTATCATATTATTGATGCTATGAATATGATGTTAGGATCCCGGTGCTAGCGTTGAAGTGATTTCGCCATTGGTGCTAAACAAGCAGAAAT  
GAAGGATTTTCTCTGTTGAAAAAATCAATCATTAGTCCAAATTATTGGAGAAATATGCGAATTGAATGAGCAGATGAATTAATTAATTTTCGCCGAGAA  
ATCTTTCAAATGGGCGCAGCGTTAGTCGAATTAATGGGCAAATGGTGAATTTGTCAACACTAAAAGCTGTGGGGCATTATTTGGTAGACATTTAT  
GGTCAGCATGACCAAGGAACCTAATGAACCTAACATGCACATTCTGATGTTAGATGAATTTGGTAATACAGAATTTAATGTCTATAAAGAACGCT  
TATCAAAGTCTTTTGTAGCTTATCGTCAGCTTCGTAACCGCGTATTGGATAACGAAAAAATGAACAAAGAAATAAATACGCTATTTGAATGAGTCTA  
GAATTTCAAATAGCAAAATGAGTCTGTAGCCCTTAATCAGATGAAGACCAACGCTACTACGAACGCTGATAATTAATGAATCAATAAGAAT  
ATTGCAGATACCTTTGACAAATGCATATCTTATGTTAGATAACGAAGAGTTTCAAGTTTATCGAATGTTTCGTTCTGCAATGAATGACCTTATGGCT  
TTAGAAGAATTTGATCGAGAATAATAAGATCTTTCCACCAATCTTTCCAGAAGCTTACTACGTTATTGAAGAAGTACTATAACGTTTAGGTGACGTT  
ATCGATGATTAGATTTTGACGCTGGTTTACTACAAGAAATGAAATAGACTAGATGTTATTAAACACATAACCGCAAAATATGGCGGTGATGTG  
AATGATGTTTAGACTATTTTGATAACATTACAAGAAATATAGTCTATTGACAGGTAGTGAAGAGTCTCAGATGCTTTAGAAAAAGAAATTAAG  
ATTTTAGAACAAGTATTGATTGAATCAGCAAAATCAATTAAAGTTTAGAGCGCCATTAGCTAGCTAAACAAATTGAAAAATGAAATCAACAGAATTA  
ACAGAGCTTTATGGAGAAAGCTGATTTCCAAAGTTCAATTTACAAAGGAAATTTAATAAGAAGGAAACGAAATTCGTTGAATTTTATATTCCA  
ACGAATCCCGGAGAGGGCTTTAAGCCATTGGTGAAGGTGGCTTCAGGAGAGGAGTATTCTCGATTGATGTAGCAATTAATCTGCTTTTTCACGT  
AAGGAAGATAAACTTCCATTGTATTTGATGAGGTGGATACAGGAGTTTCTGGTCGCGTGGCCAGGCTATCGCTCAAAAAATTCACAAGATTGGT  
AGTCATGGACAAGTTTTAGCAATTTTCTCATTTAGCTCAGGTTATTGCAATTAGCGGATTACCAATATTTTATTGAAAAAATTTCCAGTGACCTTCA  
ACAGTTTCAACGGTAAGGCTTTTAAGCTATGAAGAACGCTGTAGAAGAAATCGCTAAAATGTTGGCAGGAACCAATGTAAACAGACACTGCACGTACT  
CAAGCTAAAGAATTACTTGGTAGT

SEQ ID 296

MLLEISIKNFAIIEEISLNFETGMVLTGETGAGKSI IIDAMNNMMLGSRASVEVIRHGANKAEIEGFFSVEKNQSLVQLLEENGIELADELIRRE  
IFQNGRSVSIRINGQMVNLSLTAKVGHYLVIDYQGHQDEYMLKPNMHILMDEFGNTEFNVIKERYQSLFDAYRQLRKRVLDKQKNQENKSRIBML  
EFQIAIESVAKSDEQDTLLKQDKLMMNHNADITLTNAYLMDNEEFSNVSAMDLMALBEEFREDYKDLSTLSSEAYVIVBEVTKRLGVD  
IDDLDFDAGLLQETENRDLVINITRKYGGDVNDVLYDFDNITKESYLLTGSSEBSSDALEKELKILLEHDLIESANQLSLEHKLAKQLENTKQEL  
TSELYMEKADFQVQFTKGKFNKEGNEIEFYISTNPGEFGKPLVKSAGGELSRLMLAIKSAFSRKEDEKTSIVFDEVDVTGVSGRVAQIAQKIHKTG  
SHGVOIAISHLAQVIAIADYQYFLEIKSSDSSTVTRLLSYEERVEEIAKMLGANNVTDARTQAQKELLGS

SEQ ID 297

GTGATGTTATTAGAAATTTCTATTAAAAATTTTGCTATTATTGATGAAATTTCCCTAAATTTTGAAAATGGTATGACGGTTTTGACGGGTGAAACT  
GGAGCGAGGAAAGCTATTATTATCATTTGATGCTATGAAATGATGCTTTGGTGCGCGTGCTAGTACAGAAGTGATTTCGTCTGTGGAGCTAATAAAGCAGAA  
ATTAGAGGGGTTCTTTTCGGTAGATGCTACCCACAGACTGGTTCGTGCTTGGAATCATCAGGTATTGCTATGGAAGAAGAACTGATTATTTCGCCGA  
GATATCTTTTGCCAATGGCAGAAGCGTGAGCCGCATTAAATGGTCAGATGGTTAACTGACGCCACCTTAAACAGGTTCGGACAGTTTTTGGTAGATATT  
CATGGGCAACATGACCAAGAAGAAATTAATGCGACCACAGCTCCACACAGCAAAATTTTGGACAGCTTTTGGTGATAAAGGCTTTTGGAGCAATTGGAAGAG  
AATTAATCAGCTTATTTTGTATCGTTTAAATAAGCTTCGCTCGCCAGGTTATTGACAAACAAAAATGAAAAGGACACAAAGATCGTATTGATATG  
TTGGCCTTTTCAGATAGCAGAAATGAAAGCTGCTGCCTTTGATGTCAGGTTGAGGACGACCGGTTAAATCAAGAAGCTGATCGCTTAATGAACCAACA  
CAAATTGCTGATACCCGTACCAATGCCTACGTCATGCTAGATAATGACGATTTTTCAAGTCTATCCAATATTCGCTCTAGCATGAATGACTTACTA  
TCAATTGAGCAGTTTGATTTCAGATGACAAAGGGATGTCGACTTCGATTTCTGAAGCCTATTATATTTCTGAAGAAGTGAGCAAGCAATTGATTCAGAT  
ACCATTTGACCAACTGGATTTCAGATGGTGGCGGATTACAGGAAATGAAATTTTCGCTTGATATACTCAATAGCTTAACTCGTAAATACCGTGTGAAT  
GTGAATGATGTGCTTGACTACTACGATAATATCGTCAAGAATAACAGCTATTAACAGGAGATGACTTGTCTTCAGGGGATCTAGAGGCAGAATTG  
AAAAGCTTGGAAAAACAATTGGTTGCTGCTGCTTCGGAGTTAAGTGTCTCTCGCCATCAATTGGCGGAGCAATTAGAAGCTGAGATTAAGCTGAA  
CTTAAGGAACTTTTATATGGAAGAAAAGCAGATTTCAAGGTTCACTTTACCAATCAAAATTTTAATCGTGATGGTAAAGCTTGGAAATTTTACATC  
TCTACTAACTCAGGCGAAGGATTCAAGCCCTTTGTCAAGGTGGCTTCTGAGGAGGAGTATTACGCGCTTATGTTAGCCATAAGGCTGCTATTTCT  
AGAAAAAGAAGATAAGACGAGTATTGTTTTGATGAAGTAGATAACGGTGTTTTCTGGTTCGCGTTGCGCAAGCCATTGCCCAAAAAATTTATAAAATTT  
GGGCGACATGGGCAAGTTCTCGTATTTTACACTTACCTCAAGTTATTGCTATTGCTGATTATCAGTATTTTATTTTAAAGAAAGTAAAGAAGAG  
TCCACCGTTTCTAAGGTAAAGTTATTAATCTCTGAAGAAGCTGTGGAAGAAATTTGCTAGCATGATTGACGGAACAGATATGACACAGGTGCTCTTT  
ACCGAGGCTCGTGAACACTCTGCCAAACAT

SEO ID 298

VMLLEISIKNFIDEISLNFENGVLTGETGAGKSI IIDAMNMLGARASTEVIRRGANKAEIEGFFSVDPATPELVACLESSGIAMEEELIIRR  
DIFANGRSVSRINGOMVNLATLKQVGFLVDIGHQDHQEEELMRPLQHQQILDAFGDKAFQELKNYQILFDRYKLRQRQVIDQKNKEKHDRIDM  
LAFQIAEIAEAAALSRGEMDDRLNQERDRLMNHQIADPILTNAYVMDLDDPSSLENNRSMNDLISIEQDFSXYKGMTSIEBAYIILEEVSKQSD  
TIDQLDFDGGRLQBIETFLDILNSLTRKYGGNVNDVLDYDNIKVKEYQLLTGDDLSSGDLAEELKSLEKQLVAAASELSVSRHQLAEQLEAEIKAE  
LKELYMEKADFKVHTTSKFNRDGNESLEFYISTNPGEGFKPLVKSASGEELSRMLLAKAATSRKEDKTSIVFDEVDVTGVSGRVQAIAQKIYKI  
GRHGQVIAISHLSPQVIADYQVIFISKESKESTVSQVRLTPEERKEVETASMIAGTMDTOALTOARELLAKH

SEQ ID 299

ATGAGTAAAAATCAAATTTGTAACGGATTCTTCCATTACCAATTGAACCAGAACTTATTAAGAGCTTGACATTACAGTTGTTCCCTTGTCAAGTTATG  
ATAGATGGTACCTTGTATTTCAGACAAATGACTTAAAGCACAGGGGAATTTCTGAACCTAATCGTGGAAGTAAGGAATTGCCAAAAACAAGTCAA  
CCACCTGTAGCTGTTTTTGCAGAAATTTATGAAAAATTAATGAATGAAGGTGTGAACATATACATTGCAATTCATTAAACGCATACACTATCAGGA  
ACTATTGAACGATCACGCCAGGAGCTTAATTTGCTGGTCAGATGTTACAGTTATGATTTCTACTTTTACAGACAGCTGTCAAAAATTCAGGTT  
GTAGAAGCTGCGAAATTAGCTAAAGAGGAGCTGATTTAGTATACCATCTTGGCTGCTGTGGAAGAAAGTACGCCAGAAGTCAGAATTTATTTATGGC  
GTATCGACCTTGAAAAATTTAGTAAAGGTGGTGGTATTGGACGTGTAACGGGTCTTCTAAGTTCATTGCTTTAATATAAAAGTAATTTATGGAGCTA  
ACAAACCATGAAATTTAGTACCGATTGTTTAAAGGTGCGCGTCTAAAGACCTTCAGCAAAATGGTTAGATAAATTTTGTGAAAGTGCCCAACACGAAAA  
ATTGCTGAAATGGCATCTCTTACTGTGGTAAAGCTGATATGGCTAAATAACTTTAGAGAAAAAATCAGCTGTTCTAGGTGCTCCTATATCCGTTTTA  
GAACTGGCTCAATCATCCAACCTCACTCTGGTGAGGATGCATTTGCTGTTATGGTTCGTTATGAA

## SEQ ID 300

MSKIKIVTDSSTITIEPELIKELDITVVPVLSVMIDGTLSDNDLKAQGEFLNLMRGSKEPKTSQPPVGVFAEIEYKLMNEGVEHIIAHLHTLSG  
TIEASRQGANIAGADVTVIDSTFTDQCQKFQVVEAAKLAKEGADLDITLARVEVVRQKSELFIGVSTLENLVKGGRIGRVGTGLSSLLNIKVIMEL  
TNHELVPVVKGRGLKTFKSWLDFVESAQTRKIAEIGISYCGKADMANNFREKLAVLGAPISVLETGSI IQTHTGEDAFVAVMRYE

## SEQ ID 301

ATGGAAAAATACATGCGGAACATATAAAATTTGTTACAGATTTCATCAATACTATGAACCCAGAAATTAATAAGCTTTAGATATTACTGTAGTACCT  
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AAAACAGCTCAGCCACCGGTTGGTCTCTTTGCTGAAACTTACGAAAAATTTGGTCAAAAAAGGAGTAACGTGACATTGTTGCTATTCACCTCTCACCA  
GCTTTATCAGGTACTATTGAAGCTTCCCGTCAGGGGGCTGAAATCGCTGAGGCACCTGTTACAGTTTATGATTTCAGGATTTACTGATCAAGCCATG  
AAATTTCCAGGTCGTTGAGGCAGCAAAAGATGGCAAAAGCGGGTGCTAGTTTGAATGAGATTTTGGCTGCTGTTCAAGCTATCAAAATCAAAAACAGAG  
CTCTACATTGGTGTATCTACCTTAGAAAAATTTAGTAAAGGAGGTGCTATTGGTCTGTGACGGGTGTTTTGAGCTCGCTACTTAATGTCAAAGTT  
GTTATGGCACTTAAAAATGATGAGTTAAAAACGCTTGTCAAAGGTGCGAGGTAATAAAACATTTACGAAATGGTTAGATAGTTACCTCGCTAAAAAT  
AGTCATCGCCCCGATTGCAGAGATAGCTATTTCTTATGCTGGTGAAGCTAGCCTGGCATTAAACCTTAAAGAAAGAAATCGCAGCTTATTACAACCCAC  
TCTATTTCCGGTTTATAGAAACAGGCTCTATCATCCAAACACATACAGGAGAAGGAGCTTTTGCGGTTATGGTTCGTTATGAA

## SEQ ID 302

MEKYMGTIKIVTDSSTITIEPELIKALDITVVPVLSVMIDSKLYSDNDLKEEGHFLSLMKASKSLPKTSQPPVGLFAETIYENLVKKGVTDIVAIHLS  
ALSGTIEASRQGAIEAEAPVTVLDSTFTDQAMKFQVVEAAKMAKAGASLNEILAAVQAISKTELYIGVSTLENLVKGGRIGRVGTGLSSLLNVKV  
VMALKNDLKTLLVKGGRNKTFTKNLDSYLAKNSHRPIABIAISYAGEASLALTLKERIAAYYNHISISVLETGSI IQTHTGEGAFVAVMRYE

## SEQ ID 303

GTGAGGATGCATTTGCTGTTATGGTTCGTTATGAATAAGAAAAAATACTTACCGGACTTTCTTTTTTCTGGTAAGTCTTCTTTTATCTTTTGGG  
ATTTTTTCTTGATCATTCCAAATCAAAATCCTAAATTAACAAAAAAGACTTCTTAACAAAGAAAGTTATCCCACTTAACATGTTGCTCTTGGA  
GATTCCTGACCGAAGGTGTGGGCGATACAACCTCTCAAGGTGGTTTTGTTCCACTGCTATCAGAATCACTCCATAATCGATACCTTTACCAAGTG  
ACTTCTGTTAAATGATGGTGTGTCTGGGAATACTAGTCAACAAATTTTAAACAGTATGACGACAGATCCTCAAAATCGAAAAAGATTTAGAGAAAGCT  
GATTTATTGACGCTAACTGTTGGTGGTAAATGATGCTTGGCTGTTATTTCGTAAGAGCTCAGTCATTTATCACTAAATTCCTTTGAGAAAAACGCA  
GAAGCATATAAGGAACGTTTGAAGAAATCCTTGCAAAGCAAGACAAGATAATCCTAAATGCTTATTGTTTTAGGCATTATAATCCTTTT  
TACCTAACTTTCCACAATTAATAAAATGCAAAACCGTTATTGATAAATTGGAATAAAGCTACAAAAGAGTAGTTGATGCTTCAGAAAAATGTTTAT  
TTTGTCCCAATTAATACCGCCTTTATAAGGGAATAAATGGTAAAGAGGTTATTAACAGATCATCAAAATAGTCAAGGAAGTATCACTAATGATGCT  
CTCTTTACTGGAGACCATTTTCATCCCAATAATATTGGCTATCAATCATGTCTAACGCGCTTATGGAGAAAAATAAAGAAACAGAAAAAAGCTGG  
CCG

## SEQ ID 304

MRMHLLWFVVMNKKKILTGLSFFLVSLLSFGIFSLIIPKSNPKLTKKDFLTKKVIPLNYVALGDSLTEGVGDTTSGGGFVPLLSLSESLHNRYSYQV  
TSVNYGVSGNTSQQILKRMTTDPQIEKDLEKADLLTLTVGGNDVLAVIRKELSHLSLNSFEKPAEYKERLKEILAKARQDNPKLPVVLGIYNPF  
YLNFPQLTKMQTVIDNWNKATKEVVDAENVYFVPINDRLYKINGKEGITESSNSQASITNDALFTGDHFPNNGIYQIMSNVMEKINETRKNW  
P

## SEQ ID 305

TTGCGGTTATGGTTCGTTATGAATAATCGTCATTTATTTAGTGGGATATTTTCTTTGTTATTAGTTTATGTCTGGCCTTTTTTATTGCTAAATATT  
ATTATCCCTAAGTCAAAATTCACGTTTGAAAAAGAGTGATTTTCTGAAAAAGAACAGTAGCTATCCAATATGTTGCTATAGGAGATTCATTGACA  
GAAGGAGTAGGTGATCTAACTCATCAAGGTGGTTTGTCTCTTGTTAACGAATGATCTCAGTGAATATTTTAAAGGCTAATGTTAATCATCAAAAT  
TACGGCGTATCTGGTGATACAGTCAACAAATCTTGATAGGATGATAAAACAAAAGCAGATACAGTTATCTTTAAAAAAGCAGATATAATGACG  
TTAACCGTTGGTGGTAAATGATGTTATGGCAGTTATTTCGGAATTTAGCGGATTTGCAAGTTTCTAGTTTGTAGAAAGCCAGCTCGTCAGTATCAA  
AAACGATTAAGACAGATTATCGAGTTAGCCAGAAAAAGATAATAAAGATCTTCTATTTTATTTTAGGCATCTATAATCCGTTTATTGTAATTTT  
CCAGAACTAACTGATATGCAAAAGTGATTTGATGACTGGAATACCAAACTAAGGAGGTTGTTGGAGAAATACGATCGTGTGTACTTTGTGCCAATA  
AATGACCTCTTGATAAAGGGATAAATGGACAAGAAGGAATTGTTCAATCTTTCAGGAGATCAAACTACAATTTGTCAATGATGCTTGTTTACTGGG  
GACCATTTTACCACAAATAACTGGCTATCAATCATGTCAATGCAGTAAATGGAGAAAAATTAAGAGCATGAAAAAATCAAACTT

## SEQ ID 306

LRLWFVMNRLHLSFGIFFVVISLCLAFLLLNIIIPKSNRLKKSDFLKKEQVAIQYVAIGDSLTEGVGDLTHQGGFVPLLTNDLSEYFKANVNHQN  
YGVSGDTSQQILDRMIKQKQIQLSLKKADIMTLTVGGNDVMAVIRKNLADLQVSSFRKPARQYQKRLRQIIEELARKDNKDLPIFILGIYNPFYLN  
PELTDQMKVIDDWNTKTKEVVGEYDRVYFVPINDLLYKINGQEGIVHSSGDQTTIVNDALFTGDHFPNNTGYQIMSNVMEKIKKHEKKIKP

## SEQ ID 307

ATGAAACAAGAAAAAATGCGCGTAATTTAAATTTCTGGAAATGGGCATTTCTCTTATTGTTGGCAATTAACCTTTCTTTCACAGCAGTGATTGCA  
AGTCGCTTAATTCAGTACGTGAGCCTAATACAGGAAAAATTTGCACTGGGGTACAAGATAAAGTAAAGTAGGTACTTTTACGACCAATAAGTCG  
CAACTGAATAAGACAATTCGACCTTTATTTAAACAATATCAAACTAAGAAGATGAATTTAAGATTTTATGCTGCTTCTCTTATACCTATTGAA  
GGCTCTTATCAATTTAGGTTATGAAGTGCTTTATACATCTATTTTGAACCTTATCGTTTTAACAATGGCGCTGTTCAACTTAAAGTGACCTCAA  
TTTTAGTAGGAATCTTCCGCTTCCAGAAAAAGATGTTTACAATATATAAAATCATCTTATAAATGGCAAACTTTGATAGATATAAAACCTTAA  
AAATCGGTTATTAATATTAATTTGCAAGATTTAAAAATAAAGAAGGTATTTATTTGAAAGCGACTGCAATTGATTTAGTAAACGATAATTTTAGT  
TTCGATATTTTAAAGAAAAAGCCC

## SEQ ID 308

MKQEKTRGNLNFWKWAFLLLLAINLSFTAVIASRLIQVRBPNTGKISTGVQDKVKVGTFTTNKSQLNKTIALYLKQYQTKKMNKYKIYAASSILFE  
GSYQLLGYEVPLYIYFEPYRLTNGAVQLKVTSFSVGTLPPEKDVLQYIKSSYKLPNFVDIKPKKSVININLQDLKNKEGIYKATAIDLVDNDFS  
FDIFKKKP

## SEQ ID 309

ATGAAAAAATAACAACTTAATTTGGTGGAAAGTGGAGCTTCTTATGCTGCTGCTTTTAAATACCGCCTTTTGTAGTGGTTATTGCAAGTCGTCTC  
ATTCAAGTAAGAGAACCAGTACAGAACTGATTGCTAAAAAACAGTTAAAAATATCAAAATTTGGTACATTTGTTACAAACAGAGAACAGCTTAAC  
GAACTGTAGCAAGTTATCTTAAAGATTATCAGACTGAAAAATGTCTTATAAATTTTATGCGACATCTTCTTCTATTTTGTGTTGAAGGAACCTAT  
CAATATTAGGGTATGAAGTCCCTTTATATATCTATTTTCAACCTCATCGTCTAGAAAAATGGAGCTGTCCAACCTACAGGTGATCTCTTTTTCAGTG  
GGAACCTCGCACTCCAGAAAAAGATGTTTGCAGTATTTGAAATCAAGCTACAAATTTGCCAAGCTTTGTTAAAGTGATGCCAAATCAATCAGCT  
ATCGTTGTTAATTTACAAGATATCCAAATGATGCTAAGGTTTATTTAAAGVCAAGAAAAATGATTTATTAAATGATGAAATCAGTTTAAACATC  
TATAAGAAA

## SEQ ID 310

MKKKSNLNNWWSFLCLLAFNTAFLMVASRLIQVREPESELIKKPKVKNIKIGTFVTTREQLNETVASYLKDYQTEKMSYKFYATSSSILFEGTY  
QLLGYEVPLYIYFQPHRLENGAVQLQVIFSFGVTLPLPEKDVLYLKSSYKLPSPVKVMPNQSAIVNLDQIQNDQAKVYLKAKKIDLFNDEISFNI  
YKK

## SEQ ID 311

ATGGCTAACAAACAAGATTTAATTGCAAAAGTAGCAGAAGCTACAGAATTAACATAAAAAAGATTTCAGCAGCAGCAGTAGATGCGATTTTTCAGCT  
GTAGCAGATTACCTTGCTGAAGGTGAAAAAGTACAATTAATCGGTTNNNNNTTAAATTAAT



## SEQ ID 312

MANKQDLIAKVAEATELTKKDSAAAVDAVFAAVADYLAEGEKVQLIGXXLIN

## SEQ ID 313

ATGGCTAACAAACAAGATTAAATCGCAAAGGTTGCAGAAAGCAACTGAATTGACTAAAAAGATTTCAGCAGCAGCAGTTGATGCCGTGTTTCTACA  
ATCGAAGCTTTCTTGTGTAAGGTGAAAAAGTACAATTGATCGGTTTTGGTAACTTCGAAGTACGCGAACGTGCAGCTCGTAAAGGTCGTAAACCA  
CAAACTGGTGCAAGAAATTGAAATTGCAGCTTCAAAAGTTCAGGCCTTCAAAGCTGGTAAAGCTCTTAAAGACCGCTGTTTAA

## SEQ ID 314

MANKQDLIAKVAEATELTKKDSAAAVDAVFSTIEAFLABGEKVQLIGFNFVEVRERAARKGRNPQTGAIEIEIAASKVPAFKAGKALKDAVK

## SEQ ID 315

TTGGCTACTAAAGTAGATGTTTCAAAGATGGCTTAACCTTATACAGCTACATTACGTAAAGGCCTGAAGTGGTCAGATGGCAGTAAACTTACTGCA  
AAGGATTTTGTATTCATGGCAACGTTTAGTTGATCCTAAAAACAGCTTACACAATATGCTTACCTTGGTGTGAAGGGCATGTGCTTAATGCCGAT  
AAAATCAACGAAGGACAAGAGAAAGACTTGAATAAGCTAGGTGTTAAGGCGGAAGGCGATGACAAAAGTTGTTATTACTTTATCTAGTCCGTCTCCA  
CAATTTATCTACTACCTTGCATTCACTAATTCATGCCACAAAAACAAGAAAGTTGTTGAAAAATATGAAAAAGATTACGCAACTACTTCAAAAAAT  
ACAGTTTACTCAGGACCATATCTGTTGAAGGTTGGAATGGTTTCAAGTGGTACTTTACGCTGAAGAAAAACAAAAATATTGGGACGCTAAAAAT  
GTAAAAACAAAAGAGAGAGAAATTCGCACTGTTAAAAAACCCAGATACCCCGTTCAAAATGTATAAACCGTGGTGAGTTAGATGCAGCTAATATCTCA  
AATACTTCTGCTATTATCAAGCTAATAAGAATAATAAGATGTCACAGATGTTCTAGAAGCGACCACTGCCTATATGGAATATAATACTACTGGT  
TCTGTGAAGGGCTTGATAATGTTAAGATTTCGTGCGCGCTTAACTTAGCAACTAACCGTAAAGGAGTTGTTCAAGCAGCCGTTGATACAGGCTCA  
AAACCGGCAATTGCTTTTGCACCTACTGGTTTAGCCAAAAACCCAGATGGAACGATTGTTGGCAAAATATGTTGCCCGAGTTATGAATATAATAAA  
ACTGAAGCAGCAAACTCTTTAAAGAGGTTTGGCTGAATCAGCTTGAACCTTGAACCTTAAACAAATTACAGAGATGCTGATGCTCCTGCTGCC  
AAAACTCTGTTGACTATATCAAGTCTACTTGGGAAGCTGCTCTTCCAGGACTTACTGTTGAAGAAAAATTTGTAACCTTTAAACAACGCTTAGAA  
GACAGTAGAAAAACAACTTTGACATCGTAGTTTCTCTTGGGGTGGGGATTATCCAGAAAGGATCAACTTCTACGGCTCTTTAAGTCAGATTCA  
CAAAATAACGATGGAAAAATTTGCTAACAAAGGACTATGATGCTGCTTATAACAAGGCAATTTCTGAAGATGCGATGAAACCAGCAGAAATCAGCGAAG  
GACTATAAAGAGCAGAGAGAAATTTTATTGAGCAAGGTGCTTAAAGCTTAACTTCTCCGTAGTGGTAAAGGTTTACAAAAATCCAAATTTAA  
GGTGTTATTCTGTAATACTACAGGTTTGTCAATAGACTTTACACATGCTTTATAAAAAATAAT

## SEQ ID 316

MATKVDVSKDGLTYTATLRKGLKWSGSKLTAKDFVYSWQRLVDPKTASQYAYLAVEGHVNLADKINEGQEKDLNKLGVKAEGDDKVVITLSSPSP  
QFIYLLAFNFMPPQKQEVVEKYGKYATTSKNTVYSGPYTVEGWNGSNGTFLKKNKNYWDKKNVKTKEVRIQTVKKPDTAVQMYKRGLDAANIS  
NTSAIYQANKNNKDVTDVLEATTAYMEYNTTGSVKGLDNVKIRRALNLATNRKGVVQAAVDVTGSKPALAFAPTGLACTPDGDLAKYVAPGYEYK  
TEAAKLFKEGLAESGLTKLKLITADADAPAAKNSVDYIKSTWEAALPLGTVEEFVTFKQRLDSRKQNFIDIVVSLWGGDYPEGSTFYGLFKSDS  
QNNDGKPFANKDYDAAYNKAISEDAMKPAESAKDYKEAEKILFEGQAYNPLYFRSGKGLQNPCLKGVIRNTTGLSIDFTHAYKN

## SEQ ID 317

GTGACTTTTATGAAGAAAAGTAAATGGTTGGCAGCTGTAAGTGTGCGATCTTGTGAGTATCCGCTTTGGCAGCTTGTGGTAATAAAATGCTTCA  
GGTGGCTCAGAAGCTACAAAACCTACAAGTACGTTTTTGTAAACGATCCAAAATCATTGGATTATATTTGACTAATGGCGGTGGAACGACTGAT  
GTGATAACACAAATGGTTGATGGTCTTTTGGAAAACGATGAGTATGGTAATTTAGTACCATCACTTGTCTAAAGATTGGAAGGTTTCAAAGACGGT  
CTGACTTATCTTATCTCTTCCGCGATGGTGTCTCTTGGTATACCGCTGATGGTGAAGAATATGCCCCAGTAAACAGCAGAAGATTTTGTGACTGGT  
TTGAAGCAGCGGTGTGACGATAAATCAGATGCTCTTTAGCTTGTGAAGATTGTAATAAAACCTAAAGGCTTACCAAAATGAGTAAAGTAAATTT  
AAAGAAGTTGGTGTCAAAGCCCTTGACGATAAACTGTTTCACTATCTTTGAACAAGCCTGAAAGCTACTGGAATTTCAAAAACAACTTATAGTGTG  
CTTTTCCAGTTAATGCGAAATTTTGAAGTCAAAGGTAAAGATTTTGGTACAAACCGATCCATCATCAATCCTTGTGTAATGGTGTCTTACTTCTTG  
AGCGCTTCCACTCAAATCATCTATGGAATTTCCATAAAAACTACTGGGATGCTAAGAATGTTGGGATAGAATCTGTTAAATGACTTAC  
TCAGATGGTTGACAGCCAGGTTCTGCTTCTACAAGAACTTTGACAAGGGTGAAGTTCAGCGTTGCAACGATTTACCCAAATGACTCACTCAAAATCA  
GCTAAGAAAACTATGCTGATAACATTACTTACGGAATGTTGACTGGAGATATCCGTCATTTAATCATGGAATTTGAACCGTACTTCTTTCAAAC  
ACTAAGAAAGACCTGCAACAACAGATGCGCGTAAAGAAAGCTCTTAAACAACAGGATTTTCGTCAAGCTATTCAAGTTTGTCTTTGACCGAGCGTCA  
TTCCAAGCACAACCTGCAGGTCAAGATGCCAAAACAAAGCCTTACGTAACATGCTTGTCCCAACCAATTTGTGACCATTTGGAGAAAGTGATTTT  
GGTTCAAGAGTTGAAAGGAAATGGCAAACTTGGTGAATGGAATGGAAGCTTAACCTTAGCTGATGCTCAAGATGTTCTATACTCTGTAATCTGAAAA  
GCAAAAGCTGAGTTTGAAGAAAGCCTTAAAGCTTTAAACAGCTGAAGGTGTAACCTTCCAGTTCAATTAGATTACCTGTTGAACCAAGCAACGCA  
GCAACTGTTCAAGGAGCCAGTCTTTCAACAATCTGTTGAAGCATCTCTTGGTAAAGAGAATGTCATTGTCAATGTTCTTGAACAGAAACATCA  
ACTCACGAAGCCCAAGGCTTCTATGCTGAGACCCAGAACCAACAGACTACGATATCATTTTATCATGTTGGGGACGAGACTATCAAGATCCACGG  
ACCTACCTTGACATCATGAGTCCAGTGTGGTGTGTTATCCAAAACTTGAATCAAAGCAGGTCAAATAGGATGTTGTGGCAGCTGCA  
GGCCTTGATACCTACCAACTCTTCTTGATGAAGCAGCAGCAATTTACAGCAGCAACAGATGCGCGCTATAAAGCTTACGCAAAAGCAGCAAGCTTAC  
CTTACAGATAATGCGGTAGATATTCCAGTTGTGGCATTTGGGTGGCACTCCACGAGTTACTAAAGCCGTTCCATTAGCGGGGGCTTCTCTTGGGCA  
GGGTCTAAAGGTCCTCTAGCATATAAAGGAATGAACTTCAAGACAAACCTGTACAGTAAAACAATACGAAAAAGCAAAAGAAAAATGGATGAAA  
GCAAGGCTAAGTCAAATGCAAAATATGCTGAGAAGTTAGCTGATCACGTTGAAAA

## SEQ ID 318

VTFMKSKWLAASVAILSVSALAACGNKNASGGSEATKYKYVFVNDPKSLDYILTNNGGTTDVTQMVDGLLENDEYGNLVPISLAKDWKVSXKDG  
LTYTYTLRDGVSWYTADGEEYAPVTAEDFVTGLKHAVIDDKSDALYVVEDSIKLNKAYQNGEVDFKFVGVKALDDKTQVYTLNKPESYWNKSTTYSV  
LFPVNAKFLKSKGDFGTDPSSILVNGAYFLSAFTSKSSMEFHKNENYWDKKNVGIESVKLTYSDGSDPGSFYKNFDFKGEFSVARLYPNDPYKS  
AKKNYADNITYGMLTGDRIHLTNLNRFSFKNTKKDPAQQDAGKKAALNNKDFRQAIQFAFDRASFQAQTAGQDAKTKALRNMLVPPTFTIGESDF  
GSEVEKEMAKLGDWEDVNLADAQDGFYNPEKAKAEFAKAKEALTAEGVTFPVLQDYPVDQANAATVQRAQSFQKQSVEASLGKENVIVNLETETS  
THEAQGFYAETPEQQDYDIISWWGPDYQDPRTYLDIMSPVGGGSVIQLGLIKAGQNKDVVAAAGLDTYQTLLEAAAIITDDNDARYKAYAKAQAY  
LTDNAVDIPVVALGGTTPRVTKAVPFSGGFSWAGSKGPLAYKGMQLQDKPVTVKQYKAKEKWKAKAKSNAKYAEKLADHVEK

## SEQ ID 319

TTGCTATTTTTCAGCAATTCTAAGAAAAGGAAATGATATGATTAATATATTTTAAAGCGTGTGCTATTTTGTGTTAGTAACGCTATGGGTGTGCATA  
ACCCTATCGTCTTTCTGTATGCAGATCCTTCCAGGAACACCTTACAATAATCCAAACTCACTGAAGAAATGATCGATTGCTTAATAAACAGTAT  
GGTTTAGACAAGCCTGTATGGCAACAATATTTGACTTACCTTTGGAATGTAATTCATGGTGAATTTGGAACGAGTTATCAATCAGTGAATCAGCCA  
GTATCAGCTAGTATTAGATTAGAGTTTCACTACATCTAGGTGTTTCAAGCTCTCGTATTTGGTGTGTTTGGGCGGTATTTGGTAGGAGCT  
ATTTGCGCAGCTCATAGAAATGATAAGTGCATGATCTTAAGTGTGTTTGAACGCTAGGGATTTCTATGCTCTATTATCTGATGCTTATTA  
TTATTAGACTATTTTGAATTTAAGTGAACCTGTTGCTTTTATCAGGTTGGGGGACTTTCTCTCAAACCATTTTACCTTCTTTAGCTCTAGGACTC  
CCTACATTAGCATCTGTTTTCACGCTTCTTCCGTAGTGAATGATTGAACCTTTAAATTTGATTATGTGCAACTAGCTCGTTCAAAGGTATGACA  
ATTCTCAAGTAACTCGAAAACATGCTTACCGTAATTTATGATTTTCAATTTTAACTCTAATTTGGCCCTTTGGCGGGGGTCTGTTAACTGGTTCT  
GCACATAATTGAGCAGATTTTCTCGATTCCAGGAATTTGGGAGCAGGTTTGTGTTTTCGATTCCAAACAAAGACTATCTGTTATTTGGGACAAAC  
ATTGTTTATGAGTAAATGTTGATGGTGTCTATCTTGATAACAGACGTTGTTATTAGTATCGTAGACCCAGCTGTTTCTGCTTGCAG

## SEQ ID 320

MLFLAILRKGNMIMIKYILKRVAILLVTLVWVITLSSFFLMQILPGTPYNNPKLTEEMIALLNKQYGLDKPVWQOYLTYLWNLVHGDFTSYQSVNPQ  
VSRMISLRGLGVSVHLGVQALVFGVLGGILVGAISARHKNDKVDGILSVIATLGISMPSFIIGILLLDYDFGKWNLLPLSGWGTFSQTLPLSLALGL

PTLASVSRFRSEMIETLNSDYVQLARSKGMTIRQVTRKHAYRNSMIPILITLIGPLAAGLLTGSALIEQIFSIPIGIGQQFVTSIPTKDYPMVIMGTT  
IVYAVMLMVAILITDVVISIVDPVRVLQ

## SEQ ID 321

ATGGCAGATAAAAAACAGAACATTTAACTTTGTAGGTGCAGGATCTTCTAGCACACAAGAAAAAATTGAAAAGCCTGCCTCTTTCTGTTTATGCAAGAT  
GCGTGGCCTCGCTTGAAAAAACAATTAGCAGTAGTTTCACTCTATTTATTAGCTCTTTTACTTACTTTTTCTGTTAGCCTCAAATTTATTGTGA  
ACTCAGAAGGATGCTAATGGGTTTGATTGCAAAAAAGTAACATACATCGCAACTTACCACCTAAATTGAGTTCAAACCTTCTTTTTGGAATGGT  
AGCATTAAGTACGCTGGAATAACAGAACTTACAGACGCTTATAAGTCTCAAAATGTCCCTGAAAAAGTTAAGTATGCTTTAGGTACAGATTCTCTA  
GGGAGAAGTGTGCTAAGCGCATCATCGTAGGTATTCCGATTTCTTACTTGTAGCTATTGCAGCTACATTGATTGTTAATTATCGGTGTTTACA  
TACGGTCTTGTTTTCAAGTTTGTGCTGGAGGACGCTTGATACATTAATGCAACGTATCGTAGAGGTAATTTCAATCAATTCCAAACCTTAGTTATCGGT  
ACAATGTTAGGTTTGGTCTTGGTAACGGTATTACGGCTATTATTATCTCTATTGCTTTTACCGGATGGACTTCTATGCTCTCGTCAGGTAAGGAAT  
TTAACCCCTATCATATCGAGAAAGAGAGTTTGTGCTTGTGTCAGGTTCACTTGGGGAAAGTCCAATTAATAATAGCCTTCAAACATATTTTACCTAAC  
ATTTCTGGTATTATCATTTGTACAAATTATGATGACAATCCCAAGTGCTATTATGATGAGAGCGGTACTTTAGCAATCAATTTAGGTGTTAAACCA  
CCGACAGCTTCAATTAGGATCATTTGATTTCAGATGCACAGAAATTAATTAATATCATATCAATCAAGTTATCTTGCCAGCTTTAGCATTTGGTAATG  
ATTTTCATTGGCATTATTTTGTCTGGTGATGGGTTGCGAGATGCTTTTGATCCAAATCTAGCGATGAA

## SEQ ID 322

MADKNRTFKLVGAGSSSTQEKIEKPAISFMQDAWRRLKKNKLAVVSLYLLALLLTFSLASNLVFTQKDANGFDSKKVTTYRNLPKLSNLFPWNG  
SIKYAGNTESTDAYKSNVPEKVYALGTDLSGRSVAKRIIVGIRISLLVAIAATFIDLIIGVITYGLVSGFAGGRDLTLMQRIVEVISSIPNLVIV  
TMLGLVLGNITAIISIIFTGWTSMRQVRNLTLSYREREFVLAARSLGESPIKIAFKHILPNISGIIIVQIMMTIPSAIMYEAVLSAINLGVKP  
PTASLGLSLISDAQENLQYYPYQVILPALALVMSLAFILLGDGLRDAFDPKSSDE

## SEQ ID 323

ATGGAATCGATTGATAAATCTAAATTTTCGATTTGTTGAGCGCGATAGTGAAGCCTCCGAAGTGATTGATACCCCTGCTTATTCTTACTGGAATCA  
GTGTTTCGTCAGTTTTTTTCTAAAAAATCTACAGTCTTTATGCTCGTAATTTTAGTGACAGTCTTGATGATGAGCTTTATTTATCCAATGTTTGCC  
AACTACGACTTTAATGACGTTAGTAATATCAATGACTTTTCAAAGCGTTATATTGGCCAAATGTCAGAGTACTGGTTTGAACCGACAAAAATGGG  
CAATCTCTGTTTGTATGGTGTGTTGGTATGGGGCAGTAATCTATTTTAATCTCAGTTATAGCGACACTAATTAATATCACCATTGGGGTAGTGTTA  
GGAGCCATATGGGGAGTTTCTAAAGCATTTGATAAAGTTATGATTGAAATTTTAAACATTATCTCAAAATATCCCTTCTATGCTTATTATCATTTGTT  
TTGACCTATTCTAGGTGAGGATTTTGAATTTGATTCTAGCTTTCTGATCTACTGGATGGATTGGTGTGCGCTACTCCATCCGTGTTCAAATC  
TTGCGTTACCGTGATTATGAGATACAACTTGTCTAGTCAAACTTTGGGGAACCAATGTACAAAGATTGCTGTTTGAAGACCTCTGCTCAATTTGGTT  
TCAGTTATCATGACTATGTTGTCAAAATGCTACCAGTTTATGTATCTTCTGAGGCTTCTTATCCTTCTTTGGGATTGGTTTACCAACCACCACT  
CCAAGTTTAGGACGTTTATTGCTAATTATTCAAGCACTTAAACAATAATGCTACCTCTTTTGGATTCCCTTAGTAACATTGATTTTAGTATCG  
TTACCACATACATTGTCGGACAAAACCTTGGCTGATGCCAGTGACCCAGTTTACATAGA

## SEQ ID 324

MESIDKSKFRFVERDSEASEVIDTPAYSYWKSVFRRQFSKSTVFMVLVLTVMMSFIYPMFANYDFNDVSNINDFSKRYIWPNAEYWFGTDKNG  
QSLFDGVVYGARNSILISVIATLINITIGVVLGAIWGVSKAFDKVMIETIYNIISNIPMLIIIVLTYSLGAGFWNLLAFCTIGWIGVAYSIRVQI  
LRYRDLEYNLASQTLGTPMYKIAVKNLLPQLVSVIMTMLSQMLPVVVSSEAFLSFFGIGLPTTTPSLGRFIANYSSNLTNAYLFWIPLVTLILVS  
LPLYIVGQNLADASDPRSHR

## SEQ ID 325

ATGGAAAAAGAACTATTTTAAGTGTTAATAATCTTCATGTTGACTTCCACACATATGCTGGAGAAGTAAAGCAATTCGTGATGTCAACTTTGAA  
TTAAAAAAGGTGAGACTCTTGCAATCGTTGGTGAATCTGGTTCAGGAAAAATCTGTAACCTACCAGAACTTTAATTGGTTTAAATGCTAAAAATTC  
GAGATATCAGGGAATGTTCAATTTAAGGGCGTAACCTTGTGAACTATCAGAAGAAGAGTGGACTAAGGTACCGCGGAATGAGATTTCTATGATT  
TTCCAAGACCTATGACTAGTTTGGATCCACGATGAAAAATTTGGCATGCAAAATAGCAGAACCAATGATGATTATCAAAAAATTTCAAAAAAGGAT  
GCTTTAAATTAGCTCTTGAGCTAATGAAAGATGTAGGTATCCCAATGCTGAAGAGCATATTAATGATTACCCACATCAGTGGTCTGGAGGAATG  
CGCCAACTGCGGTTATAGCGATTGCTTTAGCTGCTGATCCTGAAATCTTATTTGCTGATGAACCAACGACTGCTTTAGATGTAACAATTCAGCA  
CAAATTTGAACCTTAATGAAAAAATTCAGCAGAACGAGACTCCTCCATTGTTTTCTATAACTCATGACTTAGGGGTCGTTGAGGATGGCAGAC  
CGTGTAGCATTATGATGACAGGAAAAATTTGTTGAATTTGGAACCTGTTGATGAAGTCTTTTATAATCCACAACATCCATATAGTTGGGGATTATTG  
AATTCAATGCCGACAACCGACACAGAATCAGGTAGTTTAGAGTCAATTCGGGAACACCACCAGATTTGTTGAACCCACCTAAAGGAGATGCATTT  
GCAGCTCGTAATGAATTTGCATTAGATATTGATCATGAGAAGAACCCCGTACTTCAAAGTTTCAGAAAACATTTTCGCTGCTACATGGCTTTTA  
GATGAAAGATCACCTAAGGTGCTTCTCCATTACCGATCCAAAAACGTTGGGAAAAATGGAACGAGATTGAAGGGAGGAAAGCC

## SEQ ID 326

MEKETILSVNNLHVDFHTYAGEVKAIRDVNFELKKGETLAIVGESGSGKSVTTRTLIGLNAKNSEISGNVQFKGRNLVELSEEWTKVRGNEISMI  
FQDPMTSLDPTMKIGMQIAEPMIHKIKSKKDALKLALBELMKDVGIPNAEEHINDYPHOWSGMRQRAVIAIALAADPEILIADEPTTALDVTIQA  
QILNLMKKIQAERDSSIVFIHTDLGVVAGMADRVAVMYAGKIVEFGTVDEVFYNPQHPYTWGLLNSMPTTDTESGSLRESIPGTFPDLNPNPKGDFA  
AARNEFALDIDHEBPPYFKVSETHFAATWLLDERSPKVLPPLPIQKRWEKWNIEGRKA

## SEQ ID 327

ATGACTGAAAATCGAAAAAATTAGTTGAAGTCAAAAATGTTTCTTTGACCTTCAATAAAGGAAAAGCTAATGAAGTGAGAGCAATTGATAAGTT  
AGTTTTGACATTTATGAAGGTGAAGTGTGTTGGATTAGTTGGGGAACTCGGATCAGGAAAGACAACCGTTGGACGTTCAATTTTAAACCTTTATGAT  
ATTTCTGATGGAGAAATTACCTTTAATGGAGAAGTGATCTCACATCTGAAAGGTAAAGCATTACATAGTTTTCGTAAAGACGCTCAGATGATTTTT  
CAGGATCCTCAGGCTAGCTTAAACGGCCGATGAAGATTTCGTGATATCTGATGAGAAGGTTTAGATATACATAAATTAGCTAAATCAAAATCAGAT  
CGTGATAGTAAAGTTTCAAGCCCTATTAGATCTTGTAGGGTTAAATAAAGATCATTTAACACGTTATCCGCATGAATTTTCAAGTGGACAAACGACAA  
CGTATCGGGATTGACAGTCTTTAGCAGTAGAGCCTAAATTTATCATTGCTGATGAACCAATATCTGCCTTAGATGTTTCAATCCAAGCACAAGTT  
GTTAATTTAATGCAAAAATTCAGAGAGAACAGGATTGACTTATTGTTTATCGCACATGATTTGTCTATGGTAAAAATACATTTTCAAGATCGTATC  
GGTGTATTGACATTGGGGGAACTGTTAGAAGTTGGAACATCTGATGATGTTTATAACAATCCAATCCACCTTATACGAAGAGTCTATTATCAGCT  
ATTCAGAACCCAGATCCGAGAGATGAACGTCAACGTGTTTACCAGCCGTATAATCCAGCTATTGAGCAAGACGGACAAGAAGCTCAATGCACGAG  
ATTACCCCTGGTCATTTTGTCTTATCTACACCCCAAGAAGCTGAAGAAATATAAAAAACAATATTA

## SEQ ID 328

MTENRKKLVFVKNVSLTFNKGKANEVRAIDNVSFDIYEGEVFLVGESGSGKTTVGRSILKLYDISDGBITFNGEVISHLKGKALHSFRKDAQMIF  
QDPQASLNGRMKIRDIVAEGLDIHKLAKSKSDRDSKVQALLDLVGLNKDHLTRYPHFESGGQRQRIIGTARALAVEPKFIADPEISALDVSIIQAV  
VNLQKQLQREQLTYLFIADHLSMVKYISDRIGVMHWGKLLLEVGTSDDVYNNPIHPYTKSLLSAIPEPDPESERQVRHQPNYPAIEQDQGERQMHE  
ITPGHFVLSTPQEAEEYKQIL

## SEQ ID 329

ATGTTCTGAGAAATAGTCGAAAGTAAAGACCTAGAAAATTTCTTTCGGAGAAGGAAAGAAAAAATTTGTTGAGTTAAAAATGCTAATTTCTTTATT  
AAAAAAGGAGAAACCTTTTCTTTAGTTGGAGAATCTGGGAGTGGTAAACAACAATTTGGTCTGCTATTATTGGTTTGAACGATACTAGTTCCAGGT  
CAAATTTTATACGATGGGAAAGTAATTAATGGCAGAAAAATCAAAATCAGAAGCCAATGAGCTCATTCGTAAAAATTCAAATGATTTTCCAAGATCCC  
GCTGCTAGTTTGAATGAACGGGCAACCGTTGACTACATCATTTTCAAGAGTCTTTATAACTTTAATCTGTTTAAAAACAGAGGAAGAAGCCTAAGAA  
AAAAATTAAGAACATGATGAGCAAGTTGGTTGCTATCAGAGCATTTGACGCGCTACCCCTCATGAATTTTCAAGAGTCAACGTCAGCGAGGATCGGT  
ATCGCTAGAGCCCTAGTAATGAACCTGAATTCGTTATTGCTGATGAACCGATTTCAGCTTTGAGCGTTTCCGTTTCGCGCAGAGGTCTTGATCTT

CTTAAAGAATGCAAGCCGAAAAAGGTTTGACTTATCTCTTCATTGCCCATGATCTTTTCAGTCGTTTCGCTTTATTTTCAGATCGTATTGCGGTTATC  
CATAAAGGGGTTATTTGTAGAAAGTTGCAGAAAAGAACTGTTTAATAACCCCAATTCATCCCTACACCCAATCTTTGTATCAGCCGTGCCTATC  
CCAGATCCAATTTTAGAGCGTCAAAAAGAACTTGTGTCTATCATCCAGACCAACATGATTATACATTAGATAAGCCATCAATGGTTGAAATCAA  
CCAAATCACTTTTGGGCAACCAAGCAGAAATTGAAAAATATCAAAAAGAAATTG

SEQ ID 330

MSEKLVEVKDLEISFEGEGKKFVAVKNANFFIKKGETFSLVSGESGSKTTIGRAIIGLNDTSSGQILYDGKVINRGRKSKSEANELIRKIQMIFQDP  
AASLNERATVDYIISEGLYNFNLFKTEERKEKIKNMMAEVGLLSEHLTRYPHEFSGGQRQIRIGARALVMNPEFVIADEPISALDVSVRAQVLNL  
LKRMQAEKGLTYLFIADLSVVRFISDRIAVIHKGVIIEVAETEELFNNPIHPYTSLSLAVPIPDPIILERQKELVVVHPDQHDYTLDKPSMVEIK  
PNHFVWNAQAEIEKYQKEL

SEQ ID 331

ATGACAAAAACAATAAATCTGTACGCGAGACAGAAAAGAGCAAAAGCTCAAACCTTTAATGAGAGTTTGATCCTGGCTCAGGACGAACGCTGGCGG  
CGTGCC

SEQ ID 332

MTKNNKSVSETEKSKAQTFNESLILAQDERWRRRA

SEQ ID 333

GTGACGGTAACTAACCAGAAAGGACGCGTAACGTGCCAGCAGCCGCGGTAATACGTAGGTCCCGAGCGTTGTCCGGATTTATTGGGCGTAAA  
GCGAGCGCAGGCGGTTCTTTAAGTCTGAAGTTAAAGGCAGTGGCT

SEQ ID 334

MTVTNQKGTANYVPAAAVIRRSRALSFGIRKASAGGSLSLKLVKAVA

SEQ ID 335

TTGTACGCTTTGGAACTGGAGGACTTGAGTGCAGAAGGGGAGAGTGGAAATTCATGTGTAGCGGTGAAATGCGTAGATATATGGAGGAACACCGG  
TGGCGAAAGCGGCTCTCTGGTCTG

SEQ ID 336

MYALETGGLECRRGWNSMCSGEMRRYMEEHRWRKRLSGL

SEQ ID 337

GTGGCGAAAGCGGCTCTCTGGTCTGTAAGTGCAGCTGAGGCTCGAAAGCGTGGGAGCAAACAGGATTAGATACCTGGTAGTCCACGCCGTAAAC  
GATGAGTGC

SEQ ID 338

MAKAALWSVTDAEARKRGEQTGLDTLVVHAVNDEC

SEQ ID 339

GTGCTAGGTGTTAGGCCCTTTCCGGGGCTTAGTGCCGCGAGCTAAGCATTAAGCACTCCGCTGGGGAGTACGACCGCAAGGTTGAAACTCAAAGG  
AAT

SEQ ID 340

MLGVRPFFGLSAAANALSTPPGEYDRKVVETQRN

SEQ ID 341

TTGAAACTCAAAGGAATTGACGGGGGCCGACAAAGCGGTGGAGCATGTGGTTTAATTCGAAGCAACGCGAAGAACCTTACCAGGTCTTGACATCC  
TTC

SEQ ID 342

MKLKGIDGGPHKRWMSWFNSKQREBPYQVLTSF

SEQ ID 343

TTGTTAGTTGCCATCATTAAGTTGGGCACTCTAGCGAGACTGCCGGTAATAAACCGGAGGAAGGTGGGGATGACGTCAAATCATCATGCCCTTAT  
GACCTGGGCTACACACGTGCTACAATGGTTGGTACAACGAGTCGCAAGCCGGTGACGGCAAGC

SEQ ID 344

MLVAIIKLGTLARLPVINRRKVGMTSNHHAPYDLGYTRATMVGTTSRKPVTAS

SEQ ID 345

TTGTTTAGTTTGGAGAGTCTTGTGGGGCCTTAGCTCAGCTGGGAGAGCGCCTGCTTTGCACGAGGAGGTGACGGTTGATCCCGCTAGGCTCC  
ATTGAATCGAAAGGTTCAAATTTGTTTATGAAAATTGAATATCTATATCAAATTCACGATCTAGAAATAGATTG

SEQ ID 346

MFSFERSGALAQGLERLLCTQEVSGSIFLGSIESKGSNCSLKIEYLYQIPRSRNL

SEQ ID 347

ATGAAAAATTTTGAGAAAGCTCCTGCCAAACTTAATTTAGGATTAGATATTAAAGGACGATGTGACGATGGTTATCATGAATTAGCTATGATTATG  
GTTAGTATTGATCTTAATGACTACGTTACCATTCTGAGCTAAAGGAAGATTGTTATTGTTATCGATTCTGATAGTAGCAAAATGCCTTTAAATAAT  
GATAATGATGTGTTTAAAGCTGCAGATATAATCAAAAATCAATATGGTATTAATAAAGGTGTTTATATAGATTAGAAAAATCCATTCCTGTCTGT  
GCAGGACTGGGGGGTGGTTCTACTGATGCTGCTGCTACAATAAGAGCTCTTAATCGATTATGGAATCTTCAAATGGACTATGACGAAATGGTTGCT  
ATTGGTTTAAATTTGGTAGTGATGTTCCCTTATGTCTTGGTGGGGGATGTTTCGTTAGTATTAGGTAAAGGTGAAATTTGTTAAACCTTACCGACA  
TTGAGACCATGTTGGATAGTTCTGGTTAAGCCGGATTTTGGTATTTCAACTAAATCCATTTTTAGAGATATTGATTGTAAGTCTATAAGTAGAGTT  
GATATTGATTTATTAAAGTCTGCTATTTTGTCAATCAGATTATCAGTTAATGGTCAAACTATGGGAAATTCACCTCGAGGATATTACAATTACTAAA  
AATCCAGTTATAAGTACAATAAAGAACGTATGTTAAATCTGGAGCCGATGTTGCATTAATGACAGGAAGTGGACCAACTGTTTTTCAATGTGT  
TCTACAGAGAAAAAGCTGATCGTGTTTTAATAGTATGAAAGGTTTTTGCAAGAAGTTTATAAAGTTAGGTTGTTGAGA

SEQ ID 348

MKIFEKAPAKLNLGLDIKGRCDGYHELAMIMVSIIDNDYVTISELKEDCIVIDSDDSKMPLNNDNDVFKAADI IKNQYGINKGVHIRLEKSIPVC  
AGLGGGSTDAATIRALNRLWNLMQMDYDEMVAIGFKIGSDVPYCLGGGCSLVLGKGEIVKPLPTLRPCWIVLVKPDFGISTKSIIFRDIDCKSISRV  
DIDLLKSAILSSDYQLMVKSMGNSLEDITITKNPVISTIKERMLNSGADVALMTGSGPTVFSMCSTEKKADRVFNSMKGFCKEVYKVRLLR

SEQ ID 349

ATGATGGATATTGGTATACCGATTGGTAGTGATGTGCCTTATTGCTTGCTTTTCAGGTTGTGCCCAAGTCACTGGTAAAGGTGAAGTGGTTTGTGCG  
ATTTTGGGGCTGTATCGTCTTGGGTGGTTTGGTTAAACCAGATTTTGGTATCTCGACT

SEQ ID 350

MMDIGIPIGSDVPYCLLSGCAQVTGKGEVVCRIILGLLSWVVLVKPDFGIST

SEQ ID 351

ATGACAGTTTGAACAATAATAGACCATTTAGTGAGTCAAATCTTGCTTAAAGCAGAAAAATCAACATGAATTATTGTTTGGTACTTGTCAAAGT  
GATGTTAAATGACTAATACGCAAGAACACATTCTGATGCTTTTATCACAAGAGCAGTTGACAAATTCGATTAGCTAAGAAGTTAAATATTAGT  
CAGGCAGCTGTAACATAAGCAGTAAAAAGTTTAAATTTCTCAGGATATGTTGAAAGCGAATAAAGATTCTAAAGATGCTCGTATTACTTATTTGAG  
TTATCTGAACCTGCTAAACCCATGTCAGATGAACACACATCATGACAATACGTTAGGGGTTTACGGAAGATTAGTAAATCATTTTCAAAG  
GACGAAAAGGTCGTTTGAACGTTTCTTGATCTTTCTCTAGAGAATTAGAAGG



## SEQ ID 352

MTVLEQKLDHLVSQILLKAENQHLLFGTCQSDVKLTNTQEHILMLLSQEQLTNSDLAKKLNISQAAVTKAVKSLISQDMLKANKDSKDARITYFE  
LSBLAKPIADEHTHHHDNTLGVYGRVLVNHFSKDEKVVLERFLDLFSRELEG

## SEQ ID 353

ATGGGGATTTTTGAAGAAAAAACTTGATAACTTAGTAAATACTATTTTATTTAAAGCAGAAAAATCAGCATGAGTTATTATTGGAGCTTGTCAAAGT  
GACGTTAAGCTTACTAATACGCAAGAACATATTTTAATGTTACTATCTCAGCAACGCTCTCACTAATACAGATTGGCTAAGGCATTAATATTAGT  
CAGGCGGCAGTAACCTAAGGCTATCAAGAGTTTGGTCAAACAAGACATGTTAGCAGGAACCTAAGGATACGGTTGATGCTAGGGTGACTTATTTTGA  
TTAACCGAGTTAGCTAAGCCTATTGCGTCAGAACATACCCATCATCATGATGAAACCTTAAATGTTTACAACCGTTTATTACAAAAATCTCCGCG  
AAAGAATTAGAGATTGTAGATAAGTTTGTAAACAGTTTTTGTCTGAGGAATTAGAAGG

## SEQ ID 354

MGILEKKLDNLVNTILLKAENQHLLFGACQSDVKLTNTQEHILMLLSQQLTNTDLAKALNISQAAVTKAISLVKQDMLAGTKDVTDAVRYFE  
LTBLAKPIASEHTHHHDETLNVNRLQLKFSAKELEIVDKFVTVFAEERLEG

## SEQ ID 355

ATGCGATATATTACAGTTAGTGGTCTTACTTTTCAGTACGATAGCGATCCTGTGCTGGAAGGGGTTAATTACCATTAGACAGTGGGGAGTTTGT  
ACCTTAACAGGTGAAAAAGGGGCTGCTAAATCAACTTTAATAAAGGCTACTTTAGGTATTTTAAACGCCAAAGTGGGTACAGTTAATATCTCTAAA  
GAAACAAAGAAGGAAAAAATTACGTATTGCCTATTTACCTCAACAGATTGCAAGTTTAAACGCTGGCTTTCCATCGTCAGTTTATGAATTTGTG  
AAATCTGGACGATACCTTAGAAATGGTTGGTTTGAAGACTGACTAAACATGATGAAGAACATATTAGGGTTAGTTTGAAGCTGTTGGTATGTGG  
GATAATCGCCATAAAAGATAGGAAGTTTATCTGGCGGTCAAAGCAGAGGGCTGTCAATGCTAGGATGTTTGGCTTCTGATCCAGATATTTTGT  
TTGGATGAGCCAACTGGTATGGACGCGAGGACTACTGAGAAATTTTATGAGTTAATGTCATCATAATGCTCATAAGCATGGTAAGTCTGTTTGT  
ATGATTACTCAGCATCTGATGAAGTAAAGGGGTATGCTGACCGAAATATTCTCTTGTAGGAACCAATCTTTACCATGGCGTTGTTTCAATGTC  
CATACAAACGAAATGGAGGTTGAATCAGATGCTACT

## SEQ ID 356

MRYTIVSGLTFQYSDPVLBGVNYHLDSEFVTLTGENGAAKSTLIKATLGILTPKVGTVNISKENKEGKKLRIAYLPQQIASFNAGFPSSVYEFV  
KSGRYPNGWFRRLTKHDEEHIRVSLEAVGMWDRHKKIGSLSGGQKQRAVIARMFASDPDIFVLDEPTTGMDAGTTEKFYELMHNAHKHGSVL  
MITHDPDEVKGYADRNHLVRNQSLPWRCFNVHTNEMEVESDAT

## SEQ ID 357

ATGAGATACATATCAGTGAAAAATCTCTCTTTCAATATGAAAGTGAGCCAGTTTGAAGGGATCATTATCATTTAGATAGTGAGAAATTTGTC  
ACCATGACCGGTGAAAAAGGTGCTGCAAAAGTCAACCTTAAATAAAGCAACCTTAGGAATTTTACAACCAAAGGCTGGACGAGTTACTATTGCTAAA  
AAAAATAAAGACGGTAAACAATTAGAATTGCTTACTTGCCGCGAGCAAGTAGCTTAAACGCTGGTTTCCATCCACCGTTTACGAGTTTGTG  
AAATCAGGTGCGTACCCACGTAGTGGTTGGTTTAGACATTTGAACAAACACGATGAAGAGCATGTGCAAGCAAGCTTAGAAGCAGTCGGCATGTGG  
GAAACCGTCATAAGAGAATTGGTAGTTTATCAGGTGGTCAAAAAACAGTGTGGTTATTGCCCGTATGTTTGGCTTCTGACCCGTGATATTTTGTG  
CTAGACGAGCCAAACAACGGGAATGGATAGCGGTACTACTGATACCTTTTATGAACCTGATGCACCACAGTGCACATCAACATGGGAAATCCGTTCTG  
ATGATTACCCATGACCCAGAAGAAGTGAAGGCTTATGCTGATCGGAACATTCTTTAGTCAGAAACCAAAACCTTCTTGGCGTTGTTTCAACATT  
CATGAAGCTGAAACAGATGACGAAAAAGGAGGTGATGGTCATGCT

## SEQ ID 358

MRYSVKNLFSQYBSEPVLEBITYHLDSEFVMTGENGAAKSTLIKATLGILQPKAGRVTIKKNKDGKQLRIAYLPQQVASFNAGFPSTVYEFV  
KSGRYPNGWFRHLNKHDEEHVQASLEAVGMWENRHKRIGSLSGGQKQRVVIARMFASDPDIFVLDEPTTGMDSGTTDTFYELMHSHAHQHGKSVL  
MITHDPDEVKAYADRNHLVRNQSLPWRCFNIHEABTDDEKGGHGA

## SEQ ID 359

TTGTATACAGTACGCAAACTACTCTAATACAACCTGCCGCCAAAGTAAACAACGAAATAGTTGACCATGTAGGCGAGATACCTAAAAACACGCCTAAT  
GCAACACCGCTAAGGAAACG

## SEQ ID 360

MYTVRKYSNTTAAKVTTKIVDHVGEIPKTPNATPAKET

## SEQ ID 361

ATGTCCATACAAACGAAATGGAGGTTGAATCAGATGCTACTTGTATATGCTTTCTCTATGATTTTATGCAACGAGCGCTCTTAGCAGTTGTGGCTATT  
AGTATTTTGTCTCAATTTTAGGCATCTTCTAATTTTACGTCGTGAGAGTTTGTATGAGTGATACTTTGAGTCAGTTTCTTAGCCGGTGTGCA  
TTAGCGTTGTTTTAGGTATCTCGCCTACATGGTCAACTATTTTCGTTGTTTACTTTGGCGGCAGTTGTATTAGAGTATTGCGTACTGTATACAAA  
CATATATGGAATATCAACTGCTATCCTGATGTCGATGGGGTTGGCTATATCTTTAATCGTTATGAGTAAAGCTCATATGTTGGTAAATGTCAGT  
CTTGAACAGTATTTATTTGGTTCTATTATTACTATTGGGAAGGAACAAGTATGCTTTGTTGTTTGTATTGTCATTAACTCTTTTATTAAACCATC  
CTATTTATAGACCAATGTATATATTAACGTTTGTATGAGGATACAGCTTTTGTAGATGAGATTGCTGTGCGTATGCTATTTTGTGTTCAATGTT  
GTTACAGGTATTGCTATTGTCATTAAACAATTCCTGCCGCGAGGTGCTCTATTGGTGTCAACTATTATGGTTTACCAGCTAGTATTGCTATGCGGTTA  
GGTCGAAATTTTAAACGTATTATTTTCTGGGTATGTTAATTGGATTTGTGGGAATGGTAGCTGGTATTTCTCTTTCGTATTATTGGGAGACACCT  
GCTAGTGCAACAATAACGATGATTTTATTGGCATTTTCTATTAGTTAGCTTAGTAGGCTTGCTTCGCAACGT

## SEQ ID 362

MSIQTKWRLNQMLDMLSYDFMQRALLAVVAISIFAPILGIFLILRRQSLMSDLSHVS LAGVALGVVLGISPTWSTIFVVTLAAVLEYLRTVYK  
HYMEISTAILMSMGLAISLIVMSKAHNVGNVSLQYLFSGSIITIGKEQVIALFVIALITFILITLIFIRPMYILTFDEDTAFVDGLPVRMISILFNV  
VTGIAIALTIPAAGALLVSTIMVLPASIAMRLGRNFKTIVIFLGMILGFVGMVAGIFLSYYWETPASATITMIFIGIFLLVSLVGLLRK

## SEQ ID 363

ATGGTCATGCTTGATATTTTATTCTATGATTTTCATGCAACGGGCGGTAATGGCGGTAGTTGCCATTAGTATTTTGTCTCCGATTTTAGGTATTTTC  
CTTATTTTACGTCGTCAAAGTTTGTATGAGCGATACCCCTTAGTCATGTTTCTTTGGCTGGGGTAGCGCTTGGGGTAGTCCTTGGTATTTTACCAACC  
ATCACTACTATTATGTTTGTGGTTTGTAGCTGCTATTTTGTAGAAATACCTGCGTGTAGTTTACAAACACTACATGGAGATTTCAACGGCGATTTTG  
ATGTCACTTGGCTTGGCCCTATCTCTGATTATTATGAGTAAGTCGCATAGTTTCATCAAGCATGAGTTTGAACAATACCTTTTGGATCGATCATC  
ACGATTAGTATGGAAACAAGTTGTGCGCTTGTGCTATTGCTGCGGATATTTTAACTCTTGACCGTCTCTCTTATTAGACCGATGATACATTCTGACC  
TTTGTAGAGATACTGCTTTTGTAGATGGTTTGGCCGTTGCTTGTATGCTGTTCTATTCAATATCGTCACTGGGGTTGCTATTGCTTTGACCATT  
CCAGCAGCAGGAGCACTTTTGGTTTCTACCATTTAGGTCTTGCCAGCAAGTATCGCAATGAGATTGGGTAAAAACTTTAAACAGTTATCTTACTG  
GGAATTGTCATCGGTTTGTAGCGGTATGTTATCTGGTATTTTCTTATCTTATTCTTTGAAACGCCAGCTAGTGCCACTATTACCATGATTTTCTATT  
AGTATTTTCTCTTAGTTAGTCTAGGTGGAATGCTTAAAAACGGTTATTT

## SEQ ID 364

MVMLDILFYDFMQRVMAVVAISIFAPILGIFLILRRQSLMSDLSHVS LAGVALGVVLGISPTITTIIVVLAAILLEYLVRVYKHYMEISTAIL  
MSLGLALSILIMSKSHSSSSMSLEQYLFSGSIITISMEQVVALFAIAAILILTLVLFIRPMYILTFDEDTAFVDGLPVRMISVLFNIVTGVAIALTI  
PAAGALLVSTIMVLPASIAMRLGKNFKTVILLGIVIGFSGMLSGIFLSYFFETPASATITMIFISIFLLVSLGMLKKRLF

## SEQ ID 365

GTGACTCCAATATACGAAGGAAATAATTTAGTACCTAGCCGAGTTGAACCTTCAATGATGTTGGAATTGATAAACAAGGAAAACTTCTAGAAATCAAA  
TTAGGCGGCGGCAAGAAACAAGTTGATGAATACGGCGTCACAACCTGTTACATTAGAAAAATACGTTCCACTCGCAAAATGATTACAAAACTGGT  
ATGCTAATCAAAGAAGATGGGAAACAGGCAGAAGAAGGTGAAGATCCAATAGCGATGCTGATGAAACGAAGCAGCTATTGAAAGTGATCTGAT

ATAGAAGAAATACTAACCTAATACTTCTGAATCAGATACAAATAATGTAGCTCCCCAAATAGAAATCGTCTACGTTGCAAAATAAGGGTCGTTCA  
AATACTTATTGGTATAGTTTAGAAAACATAAAAAATGCAAAATACCGCTAATATCGTTCAAATGACTGAACAAGAAGCGTTAAATCAACACAAACAT  
CACAGCACTACTGAAGCACAA

SEQ ID 366

MTPIYEGNNLVPVRVELQYVGDIDKQKGLLEIKLGGGKEQVDEYGVTTVLTENTSPPLAKIDYKTMGLIKEDGKQAEEGEDPNSDADENEAIESASD  
IEENTNTNTSESDTNNVAPQNRIVYVANKGRSNTYWYSLNENKANTANIVQMTEQEBALNQKHHSSTEAQ

SEQ ID 367

ATGGATATGTCTAAATCAAATCGTCTGCTACTTGGCAAGGTTTGTGTTATTTTAATAGCTATTTCTCACCACCTTTTACCACAAGTACTGTTACGGCA  
GCCAGAAAAATTAGAAATTTCCCTGATACACCGGAAATTTTGTAGGAACGAAGGCGACTGAGACACCAGGAATCTTACCATTCACTGGTAGCTAC  
CAATTAGTTTGGGCGGATCTTGACAATCTGCAAAAGGCCAACCTTCGCACACATCCAGCTAAAAGATCAAGATGAGCCTAATATTAACAGAAAAGGA  
CTTAAATTCATCTCTCTGGCTGGCATAATTACAAATGACTGACGCTAATGAAAAACAACCTTGGTTAATGGACCGTGGCCATTTAGTTGGTTAC  
CAATTAGCGGCTTAAATGACGAGCCTAAAAACCTAGTTACAATGACAAAATATCTTAATCTGGCTTTAGTGACAAAAATCCTTTAGGAATGCTC  
TATTATGAAAATAGATTAGATAGCTGGTTAGCTCTACACCCCTAATCTGCTAGCTAGCTATAAAGTTACTCCTGTTTATCATAAAAATGAGTTAGTT  
CCTCGCAAGTAGTTCTACAGTATGTTGGAATTTGATGAAAAATGGAGATCTACTTTCAAATTAAGTTAGGTAGTGAAAAAGAAAGGTGTAGACAACTTT  
GGAGTAACATCAGTTACATTAGATAACGTATCTCTTTAGCTGAATTGGATTACCAACAGGAATGATGCTAGATTCAACTCAAAACGAAGAAGAT  
AGTAATTTAGAAACCGAAGAGTTTGAAGAAGCGGCT

SEQ ID 368

MDMSKSNRRTWQGLVVLIIAILTTFTTSTVTAAKIRNFPDTEILGKTATETPGILPFTGSYQLVLGDLNLRPTFAHIQLKDQDEPNIKRKG  
LKFNPFGWHNYKLTANGKTTWLMDRGHLVGYQFSGLNDEPNKLVMTKYLTNTGFSKDNPLGMLYYENRLLSWLALHPNFWLDYKVPVYHKNELV  
PRQVVLQYVGIDENGDLQLIKLGSEKESVDNFGVTSVTLDNVSPLABLDYQTMMLDSTQNEEDSNLETEBFEAA

SEQ ID 369

ATGAATATTTTGTAGAACTCAAAGAACGTGGACTCGTTTTTTCAGACAACCTGACGAAGATGCTTTACGCAAGCTCTTGAAGAAGGTTCTGTCTCT  
TACTATACCTGGCTACGATCCTACGGCTGACAGCCTTCATCTTGGACATTTAGTTGCTATTTTAACCTCTCGTTCGCTTACAACTTGGTGGTCACAAG  
CCTTATGCACTTGTGGGAGGCGCAACTGGACTTATTGGGGACCCCTTCATTTAAAGATGTTGAGCGCAGTTTACAAACAAAGAAAACCTGTAGTTAGT  
TGGGGTAATAAAATCCGCGGTCAATATCTAATTTTCTAGAGTTTGAACAGGTGATAACAAAGCTGTATTGGTAAATAATTATGATTGGTTCAGC  
AATATTAGTTTTCATTGATTTCTTACGAGATGTTGGTAAATATTTTACTGTCAATTATATGATGAGTAAAGAACTCTGTTAAAAACCGTATCGAAACA  
GGGATTTCTTACTGAAATTTGCTTATCAAATTTATGCAAGGATATGACTTTTACGAATTAATAAGAACTATAATGTCTCACTTTGCAAATTTGGTGGT  
TCTGACCAATGGGGCAACATGACTGCTGGAACCGAATTTATAGACGAAAATCAAATGGTGTATCTCATGTTATGACTGTTCCATTGATAACAGAT  
TCTACAGGAAAAAATTCGGAATAATCTGAAGGAAATGCTGTTTGGCTTGATGCTGACAAAACCTCTCCTTATGAAATGTACCAATTTTGGCTCAAT  
GTTATGGATGCTGATGCCGTTCCGTTTCCCTTAAGATTTTACATCTCTAAGCCTTAAAGAAATAGAAGATATACGTATTCAATTCGAGGAAGCACCT  
CACCACCGCTTAGCACAAAAACACTAGCAGTGAAGTTGAACTCTTGTTCATGGTGAAGAAAGCTTATAAGGAGGCGCTTAATATCACGGAACAG  
CTATTGCTGGCAATATAAAAGGATTTGTCTGTTAAAGAGCTCAACCAAGGTTTACGTGGAGTACCAAAATATACAGTTTACAGCGGAAGATAACCTC  
AATATCATAGACCTTCTAGTCACTTCAAGGAGTTGTCAATTCTAAACGTCAAGCTCGAGAAGATGTCTCAATGGAGCTATTATATTAATGGAGAT  
CGTATTCAAGATTTAGAATATACATCTCTCAGAAAAATGATAAGCTTGAAAAATGAAATTACAGTCATTTCGTCGTGGAAAGAAAAATACTTTGTATTAT  
AACTTTAA

SEQ ID 370

MNIFDELKERGLVFQTTDEDALRKALEEGSVSYTYGYDPTADSLHLGHLVAILTSRRLQLAGHKPYALVGGATGLIGDPSFKDVERSLQTKKTVVS  
WGNKIRGQLSNFLEFETGDNKAVLVNNDWFSNISIFIDFLRDVGKYFTVNYMMSKESVKKRIETGISYTFAYQIMQGYDFYELNKNYNVTLQIGG  
SDQWGNMTAGTELIRKSNVSHVMTVPLITDSTGKKFKGSEGNVWLDADKTSPEMYQFWLNVMDADAVRFLKIFTFLSLKEIEDIRIQFEAP  
HQRLAQKTLAREVTVLVHGEKAYKEAVNITEQLFAGNIKGLSVKELKQGLRGVPNYHVQTEDNLNIIDLLVTSGVVNSKRQAREDVSNNGAIYINGD  
RIQDLEBYTISENDKLENBITVIRRGKKKYFVLNFK

SEQ ID 371

ATGAATATTTTGAAGAACTCAAAGCTCGTGGCTTGGTCTTTTCAAACGACTGATGAACAAGCCCTTGTCAAAGCATTAACAGAAGGGCAAGTATCC  
TATTATACCGGTTATGATCCAAACCGCTGACAGCCTTCATCTGGGGCATTCTAGTGGCTATCTTAACATCTCGTTCGCTTGCACACTAGCAGGGCACAAA  
CCTTACGCTCTTGTGGGGGTGCCACAGGTTTAAATGGTGATCCTTCTTTAAAGATGCAGAGCGCAGCCTTCAAACCAAAGAAACAGTTTGGAG  
TGGAGTGACAAGATTAAAGGCGAGTTGTCTACTTTCTTGATTTTGAATAAGGTGATAATAAAGCAGAGCTTGTCAACAACTACGACTGGTTCTCG  
CAAATCAGCTTTATTGACTTCTCCGTGATGTCCGTAAATACTTACCGTTAACTACATGATGAGTAAAGACTCTGTTAAAAACCGCATTGAAACA  
GGCATTTTCTTACACTGAGTTTGCTTACCAATCATGCAGGGATACGACTTCTACGAATCAATGACAAGCATATGTAACCTTACAAATTTGGCGGC  
TCTGACCACTGGGGTAATATGACAGCTGGTACTGAATTGCTCCGCAAAAGGCTGATAAAACTGGGCGACGTCATGACTGTACCACTCATACCTGAC  
TCAACCGGGAATAATTCGTTAAATCAGAAAGTAAATGCTGTCTGGCTTGATGCCGATAAGACGCTCTCTTACGAGATGTACCAATTTCTGGTTAAAT  
GTCATGGATGATGACGAGTGCCTTTCTTGAATACTTCACTTCTTATCTCTAGATGAGATTGAGAAATTTGAAGCTCAATTTAATGCCGCTCGT  
CACGAGCGTCTCGCTTCCGCTCGCAGCGAAGTGTGTTACTTGGTTTACGCGCAAGAGCTTATAAACAAGCTCTTAACATTACCGAGCAG  
TTATTGCTGGAACATCAAAATCTTCTGCAATGAATTAACAAGGATTGAGCAATGTACCAAAATTCACGTTTCAAGTCAATATGACCAATACCGAGAC  
AATATTGTCAGATTTTAGTAGCTGCTAAGATTTCCCATCAAAACGCCAGGCGGTGAAGACGTGCAAAATGGAGCAATCTACATTACCGAGAC  
CGCGTTCAAGATTAGATTACCAATTAAGTAATGATGATAAAATTTGATGATCAATTAACCGTTATTTCGCGCGGTAAGAAAAATACGCTGTTCTC  
ACTTAC

SEQ ID 372

MNIFBELKARGLVFQTTDEQALVKALTEGQVSYTYGYDPTADSLHLGHLVAILTSRRLQLAGHKPYALVGGATGLIGDPSFKDAERSLQTKETVLE  
WSDKIKGQLSTFLDFENGDNKAELVNNDWFSQISIFIDFLRDVGKYFTVNYMMSKDSVKKRIETGISYTFAYQIMQGYDFYELNDKHNVTLQIGG  
SDQWGNMTAGTELLRKKADKTGHVMTVPLITDSTGKKFKGSEGNVWLDADKTSPEMYQFWLNVMDADAVRFLKIFTFLSLDEIAEIEIQFNAAR  
HERLAQKTLAREVTVLVHGEAYKQALNITEQLFAGNIKNLSANELKQGLSNVNPYHVQSIDNHNIVEILVAAKISPSKRQAREDVQNGAIYINGD  
RVQDLQYQSLNDDKIDDLTVIRRGKKKYAVLTY

SEQ ID 373

ATGTTTAAAGGTAATAAGAAGTTGAATAGTTCTAAATTAGGTGATTACACACCCTTGAATTTGGTTCTATTTTTTAAAGAAATTTGAAGCTTTTA  
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CCAAGTAAAAATAGTTTAGTGACACAAGTTAATACACTTACTAGGTGCTTAGGTTAAGTTTATTTCTGATAAATCACAAATTTACAGAGATTGCCACT  
GATTTACAACGTACACAGTGGCAAAGGATGCTATATCTGATAAATTTAAAAAGGCTATCATTGCAACAGAGGACGAAAAATTTCAATGACCATAAAA  
GGTGTAGTTCCCAAAGCGTACTACGTGCTGCAGCGGATCTGTTCTGGGGTTTGGAGAGAGTAGCGGTGGTTCAACGCTGACACAACAAATATTA  
AAGCAGCAAAATTTGGGAGATGATCCGTCATTTAAACGCAAAATCAAAGAAATTTATTTATGCTCTAGCATTAGAGCGTTACATGGATAAGGATTCG  
ATTTTATCAGATTATTTAAATGTATCACCGTTTGGTTCGCAATAACAAAGGACAGAATAATTCAGAGTATTGAAGAAGCAGCACAAGGAGATTTTGGGA  
GTTTCCGCAAAAGATTTAACAATTCCTCAGGCAGCTTTCTTGCAGGTTTACCGCAAAGTCTTATGTATATTCTCCTTATACGAGATGCCAG  
TTGAAATCAGATAAAGATCTTAGTTTGGTATAAAGCGCCAAAAAATGTGTTATACAATATGTATAGAACGAGAGCTTTAAACCAAAGATGAGTAC  
AAATCCTACAAAGATTATGACATCAAAAAAGATTTTATCAAACTGTCAGTGGCGCAACAAATCATCATGATTATCTTACTACTCGGCATTATCT  
GAACTCAAAAGTGATGTACAATTACCTCATTAAGAGATAATGTTTTCAGAGCATGATTAAAAAAATGATGAGACTAGGACGACGATCAGACAC  
CGCGCTATTGAAGAGATTCAACAGGAGGGTATACTATTAAACTACTATCAATAAATCTGTTTATCAAGCCATGCAGGATGCTGCAGCTCAATAC  
GGAGGGTTGTTAGATGATGGTACTGGCAAGGTTCAAATGGGAAATGTACTAACCGACAATTTCTAGTGGTGCTATTATAGGATTTATTGGTGGTCTG

AACTATAGTGAGAATCAAAATAACCATGCTTTTGATACGGCAGCTCTCCAGGGTCAAGTATTAACCGATATTACCTTACGGAATTGCTATTGAT  
CAAGGGATGTTAGGAAGTGGTAGTGTCTTTCAAATTATCCAACGACATATTCAAGTGGCGAAAAGATTATGCATGCGGATGAAGAAGGTACTGCT  
ATGGTTAAACCTTCAAGAGTCATTGGACATTTCTTGGACATTTCCAGCTTTCTGGACTTACAAGATGCTACGAGATCGAGGCGTTGATGTAACCAAC  
TATATGGAGAAATAGCATATCCAATTGAAACTTTGGTATAGAAAGTTTACCCTTGGTGGTGGTATTGATACGTCAGTTGCTCAGCAACCAAC  
CTTTATCAAAATGATTGCAAAATGGTGGTGTATATCAAGCAGTATATGATAGAAAAGTATAGAGGATAGTAATGGGAAAGTGATTTATAATCACGAA  
AGTAAACCTGTCCTGTCCTTTTCGAAAGCAACAGCTACTATCTTACAGCAGCTATTACATGGACCAATTAACCTCGGAAAGACTACAACCTTTAAA  
AATCGCTTACAAGGTTTAAATAGTGGTTAGCTGGGGTAGATTTGGATTTGGAAAAACGGGTACTACTAATCACTCTCTGATGTTTGGTTGATGCTT  
TCTACACCTAAAGTGACTTTAGGTGGATGGGCGAGCATGATAAATAGCCTCTTTAGCGAAATTGACAGGTTACAATAAATGCTAATATATATG  
GCTCACTGGTTAATGCTAATTAATATGCAGATGGCAATCTTTTGGTAAGTCAGAAAGGTTTAGACTTGATGATAGCCTTTAAAAAGCTAAAGTT  
CTTAAGTCTACAGGTTTACAGCCAGGTGTAGTAACAGTAAACGGTCGTCGAATCACTGTTGGAGGTGAAAGCACAACAGTTATTGGGCAAAAAAT  
GGACCTGGAACGATGACCTATCGTTTGTCTATTGGGGAACTGATAGTGATTATCAAAAAGCTTGGTCTACTTTGGGTGGAAAAACGA

## SEQ ID 374

MFKGNKLNSSKLDYDTPLEFGSIFLRIVKLLSDFIYVILLFVMLGVGLAVGYLASQVDSVKVPSKNSLVTQVNTLTRVSRITYSDKSQISEIAT  
DLQRTPVAKDAISDNIAKAIATEDENFNDHKGVPKAVLRAGAAGSVLGFGESSGGSTLTQQLLKQQLGDDPSFKRKSKEIYALALERYMDKDS  
ILSDYLVNSPFGRRNNKGQNIAGIEBAAQIGFVSAKDLTIPQAAFLAGLPQSPFIVSPYTADAQLKSKDLFSGKIKRQKNVLYNMYRTRALTKEY  
KSYKDYDIKKDFIKPAVATTNHHDLVYSALSBAQKVMYNYLKKDNVSEHDLKNDETRATYRHRABEIQGGGYTIKTTINKSVYQAMQDAAAQY  
GGLDDGTGKVMQGNVLTNDSSGAIIGFIIIGRNYSENQNNHAFDITARSPGSSIKPILPYGIAIDQGLMGSVLSNYPTTYSSGKIMHADEEGTA  
MVNLQESLDISWNI PAFWTYKMLRDRGVDVKNYMEKLDYPIENFGIIBSLPLGGGIDTSAQQTNLYQMIANGGVYHKQYMIESI EDSNGKVIYNHE  
SKPVRVFSKATATILQQLLHGPINSKTTTFFKNRLQGLNSGLAGVDWIGKTGTTNSTSDVWMLMLSTPKVTLGGWAGHDNNASLAKLTGYNNNANYM  
AHLVNAINNADGNTFGKSERFLDDSVIKAKVLKSTGLQPGVVTVNGRRITVGGESTTSYWAKNGPGTMTYRFAIGGTDSDYQKAWSTLGGKR

## SEQ ID 375

ATGAGGTATTTTATGGTGAAATGGAACACGAAACAAAAGCGTATAAGTCATCAAAGATTAGGTCTCTTGGATTGGGGCCGGTGCTATTACGTACG  
TTGAGACTACTGTCTAACTTTTTTATATTGTTATCTTCTTTTGGAAATGATGGGATTGGTATGGCATTGGGTATTGGCTAGTCAGATTGAA  
TCTGTTAAGGTACCAAGTAAAGAAAGTTTAGTCAAACAAGTTGAATCATTAAACGATGATTCGCAAAATGAATATTCTGATAATAGTTTAAATTTCT  
ACTTTTAGATACGGATTTACTTCGAACACCAAGTAGCTAATGATGCGATTTCAGAGAAATATCAAAAAGCTATTGTATCAACAGAGACGAACATTTT  
CAAGAACATAAAGGTATCGTGCCAAAGCTGTTTTTCGGGCAACATTTGGCTTCTGTATTGGGATTGGGAGAGCTAGTGGAGGTTTCGACCTTAACA  
CAGCAATTAGTCAAGCAACAAGTTTTGGGAGACGATCCCACTTTAAGCGCAAGCTTAAGGAGATCGTTTACGCTCTTGGCTAGGACGTTTATATG  
TCCAAAGACAATATCTTATGTGATTATCTTAATGTTTACCTTTTGGCCGTAAACAACAGGGTCAAAATATTGCTGGTGTGAAGAAGCTGCGCGT  
GGCATTTTTGGCGTTTCTGCCAAAAGTTTAAACGGTGCCACAGGCAGACTTTTGGCGGGTCTTCCGCGAGAGTCTTATGTTTACTCTCTCTTATTTG  
TCAACGGGACAACATAAGTCAAGAAAGGACATGGCTTATGGCATCAAGCTCAGCAAAATGTTCTCTTTAATCATGTACCGTACAGGTGTTCTGTCT  
AAAAAAGAATACGAGGACTATAAGGCTTATCCGATTCAAAAGGATTTTATTCAACCGGGAAGTGCAATAGTAAATATACGATTACCTTTTATAC  
ACGGTGTAGCGGATGTAAAGAAAGCCATGTATAGCTATTTGATTAAAGCGAGATAAGGTGTCTAGTCTGACTTGAAAAATGACGAGACTAAGGCT  
GCTTATGAAGAGAGAGCCTTAACAGAAATGCAACAGGGTGGCTATACCATCAACCAACCATTAATAAGCCTATTTACAATGCGATGCGACAGCG  
GCAGCTCAGTTTGGTGGCTTGTATGATGATGGCAGTGGTCAAGTTCAAAATGGGAATGTCTTGACAGACAATGCGACTGGTGTCTGTATTAGT  
GTTGGTGGTAGAGATTATGCTCTGAATCAAAATAATCATGCTTTTCAATACAGTTAGATCGCCAGGTTCTAGCATTAACCCGATTAACCTGCTTATGGT  
CCTGCTATTGATCAAGGTTTAAATGGGAGTGCTAGCGTTTTGTCTAATTACCAACAACCTTACTCGAGTGGCCAAAAATCATGCATGCTGATAGT  
GAAGGAACAGCCATGATGCCACTTCAAGAGGCGCTAAATATCTTCTGGAACATCCAGCTTTTGGACACAGAAATTAAGTGGTGAAGAAAGGTGTC  
GATGTCGAAATATATGACAAAAATGGGTTATAAGATTGCAGACTCTCGATTGAAAGTTTACCTTAGGGGGCGGTATTGAAGTCTCGGTGCT  
CAACAACCAATGCTTTACCAAAATGCTTTCAACAATGGCTTATATCAAAAGCAATATTGTTAGTAAAGATTACTGATGAGTAAAGTAAAGTAAAGT  
TACAAACATGAAATAAGCCAAATTCGTATTTTCTGAGCAACAGCTACGATTTTACAAGAATTGTTGAGAGGTCCGATTACTTCAGGCGCTACG  
ACTACTTTCAAGAACCGTTTGGCGGCTATTAATCCGTGGCTTGTCTAATGCTGATTGGATTGGTAAGACCGGGAACAACCTGAGAATTATACGGATGTT  
TGGCTAGTCTCTGCTACTTCAAAAGTTACTTTAGGCGGTTGGGCGAGCAGATGATGACAAATACCTCATTAGCGCCATTAAACAGGATATAACAATA  
TCTAATTATCTTGCCTTATAGCTAATGCCATTAATCAGGCGATCCCAATGTTATTGGAGTAGGGCAACCGTTTCAACTGAGTACCGAGTCAAT  
AAGGCGAATGTCTTGAAGTCAACAGGTTTACAACAGGAACGTGTTAATGTCAATGGACATACCTTTTCTGTTGGTGGAGAAATGACCACAGTCTA  
TGGTCCCAAAAGGACCGGGGCTATGACTTACCGATTGCTATTGGTGGCAGGATGCGGATTATCAAAAAGCCTGGGGGAACCTCGGGTTCAGA  
AAAAAT

## SEQ ID 376

MRYFMVKNWTKQKRISHQRLGLLDLGPVLLRLTLRLLSNFFYIVIFLFGMMGFMAFGYLASQIESVKVPSKESLVKQVESLTMISQMNYSNLSLIS  
TLDLTLRLTPVANDAI SENIKKAIIVSTEDEFQEHKGI VPKAVFRATLASVLFGEASGGSTLTQQLVKQVGLGDDPTFKRKSKEIYVYALALERYM  
SKDNILCDYLVNSPFGRRNNKGQNIAGVBEAARGIFVSAKDLTVPQAAFLAGLPQSPFIVSPYLSLSTGQLKSEKDMAYGKIKRQKNVLYNMYRTRALTKEY  
KXYEDYKAYPIQKDFIQPGSAI VNNHDLVYTVLADAKAMYSILIKRDKVSSRLKNDETKAAAYBERALFTLQGGYTTTINPKPIYNAMQTA  
AAQFGGLLDDGTGTVMQGNVLTNDATGAVLGFVGGRDYALNQNHNHAFNTVRSPPGSSIKPIIAYGPAIDQGLMGSASVLSNYPTTYSSGQKIMHADS  
EGTAMMPLQEAALNTSWNIPAFWTQKLLREKGVVDVENYMTKMGYKIADYSIESLPLGGGIEVSAQQTNAYQMLSNNGLYQKQYIVDKITASDGTVV  
YKHENKPIRIFSAATATILQELLRGPITSGATTTFFKNRLAAINPWLANADWIGKTGTTENYTDVWLVLPKVTLLGGWAGHDNNTSLAPLTGYNNN  
SNYLAFLANAINQADPNVIGVQRFLNLDPGVIKANVLKSTGLQPGTVNVNNGHTFSVGGEMTSLWSQKPGAMTYRFAIGGTDADYQKAWGNFGFR  
KN

## SEQ ID 377

TTGGCAGGACATGAAGTTCAGTACGGAAAACACCGGTACACGCTCGTAGCTTTTCAAGAATTAAGGAAGTCTTGATTACCAAACTTAATTGAAATT  
CAAATGATTCATTCCAAGATTTTCTTGATGCTGGCTTGAAGAAGTATTGAGGATGACTTCCAATTTCAAACCTTACAGATACTATGATGATCTT  
GAATTTGTTGGTTATGATTAATAAAGAACTGGTGAATTAATACTTTGGAAGAAGCTCGTATCCATGATGCTAGCTACTCAGCACTATTGTTGTTACTTTC  
CGTTTAGTTAATAAAGAACTGGTGAATTAATACTCAAGAAGTTTCTTTGGTGATTTTCCAATTATGACTGAAATGGGTACTTTTCATCATCAAT  
GGTGGTGAACGATCATGTTGTTTCACAATTAGTCCGTTCTCCTGGTGTACTTTAATGATAAGGTAGATAAAAAATGGAAGGTTGTTTATGGGTTC  
ACTGTTATCCCTAACCGTGGAGCTTGGTTGGAACCTGAGACAGACGAAAGATATTGCTTATACACGATATCGACCCGACACGTAATAATCCATT  
ACAACACTAGTCCGTGAGCTTGGTTTCTCTGGAGACGATGAATTTGTGACATCTTTGGTGACAGTGAACCTTGTGCCAATACTATTGAAAGAAC  
ATTCAATAAAATCCAAGTGATTCTCGTACAGATGAAGCACTTAAAGAAATCTATGAACGCTCTCGTCCAGGTGAACCAAACTGCAGACAGCTCA  
CGTAGTCTTTAGTTGCACGTTTCTTTGATCCACGTCGTTATGACTTAGCGGCTGTTGGTCTGTTATAAGATTAAATAAACTGAATCTTAAACCA  
CGCTATTGAACCAACAATCGCTGAAATTTAGTTGATGGTGAACACAGAGAGATTCTTGTGTAAGCTGGAACCGTTATGACACGAGATGTCATT  
GATTCAATTGACAGACGATCATGATGGAGACTTAAACAAGTTTGTCTACAGCAAAATGATTATGCTAGTTACTGATGACGAGTATTCTTCAAAAA  
TTCAAGTTGTTGCTCCAATGATCCAGACCGTGTGTTACTATTGTTGGAACCTCAAATCTGAAGATAAGGTTCTGTCCTTAACTCCTGCAGAT  
ATTTTAGCAGAGATGTATACCTTCTTAAACCTTGCAGAGGGTATCGTTAAGGTAGATGACATTGACCATTTAGGTAACCGTCTGATTCGTGCAGTT  
GGTGAATTACTTGCGAACCAATTCGTTATCGGATCTGCTGTTGGAACGCAATGTCGCGAACGATGCTGTAACAGCAATGAAGTCTTGACCA  
CCTCAACCAATCATTAACATTCGTCCAGTGACTGCGCCGTTTAAAGAAATCTTTGGTTTCATCACAGCTGTCTCAACTGACCAACCAACACCA  
CTATCAGAAATTGTCGCACAAACCGCGTCTCTCTGCTTAGGACCTGGTGGTTTGACAGCTGACCGTCTGGATGATGAAGTTGCTGACGCTGCACTAT  
ACCCACTATGGGCGCATGTGTCGATTGAAACACCTGAAGGTTCAACATTTGGTTTGAATAAATCTATCTTCAATTGGACACCTCAATAAATAT  
GGATTTATTCAAACACCATATCGTAAAGTAGATCGTTCTACTGGTGGGTAACGAACGAAATGTTTGGTTGACTGCTGATGAAGAGATGAATTT  
ACAGTTGCACAAGCCAACCTTAAGCTTAAACGAAGACGGTACATTTGCAGAAGAAATCGTTATGGGTCGTATCAAGGTAATAACCAAGAGTTTCCT

TCAAGCATTGTTGACTTTGTGACGTCACCTAAGCAAGTAGTTGCTGTCGCAACAGCATGTATTCTTTCTTGGAAAATGATGACTCTAACCGT  
GCCTTGATGGGTGCCAACATGCAACGTCAGGCTGTGCCATTGATTGATGCCAAAGCACCATATGTTGGTACTGGTATGGAGTATCAAGCAGCCAC  
GATTCAGGTGCGAGCTGTGATTGCTAAACATGATGGTCGTGTTATTTTTTCAGATGCTGAAAAAGTTGAAGTGCCTCGCGAAGATGGTTCTCTTGAT  
GTTTATCATGTTTCAAAAATCCGCGTTCAAACTCAGGTACTGCTTTATAACCAACGTCACCTTAGTTAAAGTGGTGATCTCGTTGAAAAAGGTGAT  
TTTATCGCCGACGACCATCTATGGAATAAGTGAATGGCTCTTGGACAAAACCCAGTTGTTGCTTATATGACTTTGGGAAGGTTATAACTTCGAG  
GATGCCGTTATCATGAGTGAAGCGCTTGTGAAAGAAGATGCTATACATCTGTTTCACTTGAAGAATTCGAATCTGAAACGCGTGATACAAAGCTT  
GGCGCTGAAGAAATTACTCGTGAAATTCAAAATGTTGGTGAAGATTCACTACGTGATCTCGATGAAATGGGAATTATCCGCAATTGGTGCTGAGGTA  
AAAGAAGGTGACATTTCTGTTGGTAAAGTAAACCTTAAGGTGAAAAGGACTTATCTGCTGAAGAAGCTCTCTTGCATGCCATTTTTGGTGATAAA  
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TTGCAATCAGGTGTTAATATGCTTGTCCGCTTTATATCGCTCAAAAACGTAATAATCAAAGTCGGTGATAAGATGGCCGCTCGTCACGGAACAAA  
GGTGTCTGCTCACGTATTGTTCTGTTGAAGATATGCCCTTACTTACAGATGGAACGCCAGTTGATATCATGTTGAACCCACTTGGGGTGCCATCA  
CGTATGAATATCGGACAAGTTATGGAGCTTCACTTTAGGTATGGCTCGTAAATTTAGGTATTCATATTGCAACGCCAGTCTTGTATGGGGCTTCT  
TCAGAAGACCTTTGGGAACTGTTCAAGAAGCAGGTATGGATTAGGTGCTTAAGTCTGTTCTTTATGATGGCTGATGCTGGAACCATTCGATAAC  
CGTGTGTCAGTTGGTGTCTGATACATGATCAAACTTCAACCATGTTTGTATGATAAACTTCATGCCCGTTTCAAGTAGGACCATCTCACTTGTACT  
CAACAACCACTTGGAGGTAAAGCTCAATTTGGTGGACAACGTTTGGTGGAGATGGAGGTTTGGCGCTTGAAGCTTATGGTGCTTCAAATGTTCTT  
CAAGAATTTTAAACATCAAACTGATGTTACAGGACGCTTAAAGCTTATGAAGCTATCACAAAAGGTGAAGCAATTCAAAACAGGTGTT  
CCAGAATCATTCCGTGTTCTTGTAAAAGAATTGCAATCACTTGGTCTTGTATGCGTGTGCTTGTATGAGATGACACGAAGTCAAGTCTCGTGAT  
CTTGATGAAGGTGAAGATGATGATGATGACGTTGATGACCTTGAAGAAGCAGGTGTAACAAGAAGCTGAAGAAAAACAAGCTGAACAAGTA  
TCTGAAGTCGTTCAAGAAGAT

## SEQ ID 378

MAGHEVQYQKRRRTRRSFSRIKEVLDLPNLIETDTSFQDFLDAGLKEVFEDVLPISNFTDMDLEFVGYELKEPKYTLLEARIHDASYSAPIFVTF  
RLVNKETGEIKTQEVFFGDFPIMTEMGTFIINGGERIIVSQLVRSPGVYFNDKVDKNGKVGYSTVIPNRGAWLELETDKDIAYTRIDRTRKIPF  
TTLVRLALGFSGDDEIVDIFGDSLVNRTIEKDIHKNPSDSRTDEALKEIYERLRPGEPKTAADSSRLVARFFDPRRYDLAAVGRYKINKKLNKLT  
RLNQITIAENLVDGTEGILVEAGTVMTRDVIDSIAEHIDGLNKFVYTPNDYAVVTEPVILQKFVAVPTDPRVVTIVGNSNPEDKVRALTTPAD  
ILAEMSYFLNLAEGIVYKVVHLEEFSESTRTKLGPBEITREIPNVGDSLRDLDEMGIIIRIGAEVKEGDIIVGKVTPEKGEKDLSEERLLHAIFGDK  
LSELSHKRRLSALPGGLTRDRAGYEVDRDVHYTHYGRMCIETPEGNIGLINLSSFGHLNKGFIQTPYRKVDRSTGAVTNEIWLTADEDEF  
TVAQANSKLNEDGTFAEEIVMGRHQNNQEPSSIVDFVDVSPKQVAVATACIPFLENDDSNRMLMGMANMQRQAVPLIDPKAPYVGTGMEYQAAH  
DSGAAVIAKHDRVIFSDAEKVEVRREDGSLDVYHVQKFRRSNSGTAYNRQLTVKVGDLVEKGDFIADGSPMENGEMALGNPVVAYMTWEGYNFE  
DAVMISERLVKEDVYTSVHLEEFSESTRTKLGPBEITREIPNVGDSLRDLDEMGIIIRIGAEVKEGDIIVGKVTPEKGEKDLSEERLLHAIFGDK  
SREVRDTSRVRPHGGDGVVRDVKIFTRANGDELQSGVNMLVRVYIAQKRKIKVGDKMGAGRHNKGVSRIIVPVEDMPYLPDGTGPDVIMLNLGPVS  
RMNIGQVMELHLGMAARNLGIHIAFPVFDGASSEDLWETVQEGMDSDAKTVLYDGRTEGPFDRNRSVGVMYMIKLHMHVDDKLHARSVGPYSLV  
QQPLGGKAQFGGQRFGEVMEVWALEYASNVLQELITYKSDVDTGRLKAYEAITKGKPIPKPGVPESFRVLVKELQSLGLDMRVLEDDNEVELRD  
LDEGEDDDVMHVDLEKARVKQBAEBKQAEQVSEVVQED

## SEQ ID 379

TTGGCAGGACATGAAGTTCGATACGGAACACCGTACACGTCGTAGCTTTTCAAGAATCAAAGAAGTTCGTGATTACCAAATTTGATTGAAAT  
CAAACGTGACTCATTCCAAGATTTCTCGATTACAGTGTGAAAGAAGTATTGAAGATGTACTTCTTATTTCAAACCTTACGGATATCTATGAACTT  
GAATTTGTTGGTTACGAATTTAAAGAACCTAAATATACCTTGAAGAAGCTCGTATCCACGATGCAAGTTATTTCTGCAACCAATCTTTGTTACCTC  
CGTTTGGTCAATAAAGAACTGGTGAGATTAAACCTCAAGAAGCTTCTTGGTGATTATTTCCCAATCATGACGGAATGCGATTCATTTATCAAT  
GGTGTGAACGATCATCTGTTTCTCAGTTGGTGCCTTCTCCAGGTGTTTATTTCAACGATAAAGTTGATAAAAAACGGTAAAGTTGGTTACGGATCA  
ACAGTGATTTCTAACCGTGGGGCTTGGTTGGAATTAGAGACTGACTCAAAAGACATTTGCCACACTCGTATTTGACCGTACCGTAAGATTCCTATTC  
ACAACCTTGGTTCTGATTTCTGTTTCTCAGGTGATGATGAAATTTGTTGATATCTTTGGTGAAAGCGACCTTGTTCGTAATACCATTTGAAAGAGC  
ATTACAAAAATCCAGTGATTTCTGATACAGACGAAGCCCTTAAAGAAATTTACAGAGCTCTTCTGTCAGGTGAGCCAAAACTCAGATAGCTCT  
CGTAGTCTTTTGATTGCGCGTTTCTTTGATGACAGCTCGTTACGATTTGGCTGCGGTTGGTCTGTTACAAAGTGAACAAAAAATTAATATCAAGACT  
CGTCTTTTGAACCAAATCATTTGCTGAAACCTTGTGGATGCTGAAACTGCGCAATTTTGGTAGAAGCTGGAACCTGAGATGACTCGTAGCGTCATC  
GAATCCATCGAAGAACACCTTGACGGTGATTGAACAAGTTTGTTCACACCAAATGATTACGCTGTGGTTACTGAACCTAGTTGCTCTTCAAAG  
TTCAAGGTTGTGTCACTCAATGATCTGCTGTGAT  
ATTTTGGCAGAAATGTCTTACTTCTTGAACCTTGTGTAAGGTCTTGGAAAAGTTGACGATATTGACCACCTTGGGTAAACCGTCTGATCCGTCGCT  
GGTGAATTTGCTTGCACCAATTCGCGATCGGTCTTGTCTGATGAGAGCTAACGTCGCTGAGCGTATGCTGTTCAAGACAACGATGTGTTAACA  
CCACAACAAATCATCAATACCTCGTCTGTACAGCAGCTGTCAAAGAATCTTCTCGGTTCTGCTCAGTTGTCAAGTTTCAAGTTTCAAGTTTCAAG  
TTGTGAGAGTTGTCTCAACAACTGCTTATCTGCTTGAAGCTGCTTGGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT  
ACGCACTATGGCCGTATGTGTCCGATTGAAACACCTGAAGGACCAAACTTGGTTTGAATTAATACTTGTCTTCAATTTGGACATCTTAATAAATAT  
GGTTTCATCCAAACACCTTACCGTAAGGTGACCGTGCGACTGGTACGTTAACTAACGAGATTGTTTGGTTGACTGCCGACGAAGAAGACGAATAC  
ACAGTTGCAAGGCCAATTCGAACTAAACGAAGATGGCACTTTTGTGTAAGAAGCTCGTTATGGGTGCTCACCAAGGTAATAACCAAGAAATTTCT  
CGAAGTGTGTGTGATTGTTTCTGTTGACGTTTCCCTTAAACAGGTATGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT  
GCCCTCATGGGTGCCAATGCAACGTCAGGCTGTGCCATTGATTGATCCAAAAGCACCATATGTTGGTATGTTGTTGTTGTTGTTGTTGTTGTTGTT  
GACTCAGGCGCTGCGGTGATTGCTCAGCAAAATGGTAAAGTTGTCTTTCTGATGCTGAAAAAGTGGAAATCCGTCGTCAAGATGGCTCGCTTGAT  
GTTTACCACATTACCAAATTCGCTGTTCAAACCTCAGGAACAGCCTTATAACCAACGACCCCTTGTAAAGTAGGAGACATGTTGAAAAAGGTGAT  
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GATGCCGTTATCATGAGTGAGCGCTTGTGAAAGAAGATGTCTACACATCTGTTTCACTTGGGAAGAAATTCGAATCTGAAACGCGTGATACAAACTT  
GGCCCTGAAGAAATCACTCGGGAATCCCAAATGTTGGTGAAGAAGCCCTCAAAGACCTTGACGAAATGGGCATTATCCGTATCGGTGCTGAGGTT  
AAAGAAGGCGACATCTTAGTAGGTAAAGTCACACCTAAAGGTGAAAGGACCTTCTGCTGAAGAAGCTTACTTCAAGCCATCTTTGGGGATATAA  
TCGCGTGAAGTGGCTGATACCTCCTCAGGTCGTTGAT  
TTGCAATCAGGTGTTAATATGCTTGTGCGTGTTCATCGCTCAAAAACGTAATAAAGGTGCGAGATAAATGGCCGCTGCTCAAGGAACAAG  
GGTGTCTGTTTACGTTATTTGACAGTTTGAAGACATGCCATACCTTCCAGACGGAACACCAGTTGACATCATGTTGAACCTCTTTGGGGTGCCATCA  
CGGATGAATATTTGGTCAGGTTATGGAACCTTCACTTGGTATGGCTGCTCGTAATCTTGGTATTCACATTGCAACACCTGCTTTTGAACGGGCTTCA  
TCAGAAGACCTTTGGGACACTGTTCTGTAAGCTGTTGAT  
CGTGTATCCGTTGGTGTCTGATATGATCAAACTTCAACACATGTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT  
CAACAGCCACTTGGTGGTAAAGCTCAATTTGGTGGACAACGTTTGGTGGAGATGGAGGTTTGGGCCCTTGAAGCTTATGGTGCATCAAAATGTTCTT  
CAAGAAATCTTGACCTCAAGTCAGATGACGTCACAGGACGTTTGAAGCCTATGAAGCGATTACTAAAGGTAAACCAATTCAAAACAGGTTGTA  
CCAGAATCTTCCGTGTTCTTGTAAAAGAATTGCAATCGCTTGGTCTTGTATGATGCTGCTTGGACGAGGATGATAATGAAGTGAACCTTCTGTGAT  
CTTGATGAAGGTGAAGACGATGACATTATGATGTTGACGATCTCGAAGAGGACGTTGAAACCAAGCTCAAGAAAGCTTCAAGAGTTTCTGAACA  
ACTGACGAAAAA

## SEQ ID 380

LAGHEVRYGKRRRTRRSFSRIKEVLDLPNLIETDTSFQDFLDGLKEVFEDVLPISNFTDMELEFVGYEFKEPKYTLLEARIHDASYSAPIFVTF  
RLVNKETGEIKTQEVFFGDFPIMTEMGTFIINGGERIIVSQLVRSPGVYFNDKVDKNGKVGYSTVIPNRGAWLELETDSDKDIAYTRIDRTRKIPF  
TTLVRLALGFSGDDEIVDIFGESDLVNRITIEKDIHKNPSDSRTDEALKEIYERLRPGEPKTAADSSRLVARFFDPRRYDLAAVGRYKINKKLNKLT



RLLNQIIAENLVDAETGEILVEAGTEMTRSVIESIEBHLGDGLNKFVYTPNDYAVVTEPVVLQKFKVVSFIDPDRVVITVGNANPDDKVRALTPAD  
ILAEMSYFPLNLAEGLGKVDIDHILGNRRIRAVGELLNACPIRIGLAMERNVRERMSVQDNVDLVTQQIINIRPVTAAVKEFFSSQSSQLSQFMDQHNP  
LSELSHKRLSLALGPGLTRDRAGYEVNRDVHYHTHYGRMCPIETPEGNIGLINNLSFGHLNKGYFIQTPYRKVDARTGLVTNIEVWLTADEEDE  
TVAQANSKLNEDGTFABEIVMGRHGEQVDFESASVVDVDSGPKQVAVATACIPLFENDSNRNLGAMMQRQAGTVIDPKAPYVGTGMEYQAAH  
DSGAAVIAQQNGKVFSDAEAKVEIRRDGSLDVYHITKFRRSNSGTAYNQRTLKVKGDIVKGDFIADGPSMENGEMALGQNPVVAYMTWEGYNFE  
DAVIMSERLVKEDVYTSVHLEEFESETRDTKLGPEEITREIPNVGEEALKDLDEMGIIRIGAEEVKEGDIIVGKVTPKGEKDLABEERLLHAIFGDK  
SREVDRDTSLRVPHGGDGIVRDVKIFTRANGDELQSGVNMLVRVYIAQKRKIKVGDKMAGRHNKGVVSRIVPVEDMPYPDPDGTVPDIMLNLPGVPS  
RMNIGQVMELHGLMAARNLGIHIATPVFDGASSELWDVTREAGMDSDAKTVLYDGRTEGPFDRNRSVSGVMYMIKLHMHVDDKLHARSVGPYSLV  
QPLGGKAGPQGGQRFGEHMEVWALBAYGASNLVQEILYTKSSDDVTGRLLKAYEAITKGKPIPKPGVPSEFRVLVKELQSLGLDMRVLDEDDNEVELRD  
LDEGEDDDIMHVDDLEKAREKQAQETQEVSETTDEK

SEQ ID 381

ATGATGATAAAATCGAAGAAAGGTTAAACTAGTGGTTGACGTAAATCGTTTTAAAGGATATGCAAAATCACATTAGCATACCAAAGTAAGGTCGGTTCA  
TGGTCTTATCGTGGAAGTTAAAAAACCTGAAAACAACTCAACTACCGCACATTGAAACCAGAACCTGGAAGGCACTTTTGATGAAGTTATTTTTGGTCCCA  
ACAAAGATTGGGAATGTGCGTGTGGAAATACAAACGTTCTGTTTCAAAGGAATCAATTTGTGACCGTTGTGGAGCTTAACCCGTCGCAAA  
GTTCTGTCGCGAACGATATGGGACATATCGAGTTAAAGACACCAGTATCTCATATCTGGTATTTTCAAAGGTATCCCATCGCGTATGGGGCTCACATTG  
GATATGAGTCTCTCGTGCACCTTGAAGAAGTTATTTATTTTTCGGGCTTATGTTGTTATCGATCCAATGGACACACCATTAGAACCAGGAAGTCACTCCTT  
ACTGAGCGCTGAATACCGTGAAAAACTTCAAGAGTACGGTTACGGTTTCGTTTGGTTCGTATAAATGGGTGCTGAAGCCATTCAAGATCTTCTTAAACGC  
GTTGATTTAGATGCGAATACTCGCAGTTCTTAAAGAGGAGTTGAAATCAGCGACAGCTCAAAAACGCTGTGAAGAGCAGTTTCGTGCTCGGATGGTTTA  
GATGCCCTTTAAAAAATCTGGAAATAAACCAGATGGATGGTTCTTAAACATCTTTTACCGGTTATCCCAACCGCATCTTCGTCCGATGGTTCAATTAGAT  
GGTGGTTCGTTTTGCGGCATCAGACTTGAATGACCTTTACCGCGGTGTTATTAAACGCTAACAAATCGTTTGGCAGCTTTTGTGGAATTAATGCTCCT  
GGCATCATCGTTCAAATGAAAAACGATATGTTACAAGAGCTGTTGATCGGCTTATCGACAATGCTCGTCGTGGTTCGTTCAATTACCGGCACAGGT  
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TCCGTTATTGCTGTTTGGTCCCAACATCAAAATGCTACCAATGTGGTGTACACAGTGAAATGGCTATTGAGCTCTTCAAACGCTTTTGTGAATCGGTGAA  
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AAAGAGCACCCAGTACTTCTTAAACCGTGCACCTACTCTTCACAGATTAGGTATCCAAGCGTTTGAACCTGTCTCTATTGATGAAGGCGCTTCGT  
CTTCAACCCACTTGATGTGAGGCTCAACATGCTGACTTGTGAGAGCAAAATGGCCATCAACGTTCCATTGCTGAAGAAGCCCAAGCAGAAGCT  
CGCTCTTTGATGCTTGTGTCGAGACACATCTTAAACCTTAAAGATGGTAAGCCAGTCGTGTAACACCATCTCAGGACATGGTTTTAGGAAATTA  
CTGACTATGGAAGATGCTGCTGCTGAAGGTGAAGGCATGATTTTCAAAGATCATGACGAAGCAGTTATGGCATATCAAAATGGTTATGTTCAATTTA  
CATACACGTTGTGGTATCGCTGTTGATTTCAATCCGGAATAAGCCTTGGACAGAAGAGCAAAAAACATAAAATCATGGTTACAACAGTTGGTAAAGAT  
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CCAGGTACAGATATTAAGCAGTTATTGATAACTTAGAGATTAAATATTCCTTTAAGAAGAAAAATCTTGGTAATATTATCGCAGAAAATCTTTAA  
CGTTTTCCGTAACAACAGAACTCTTCGCTTTCTTGTACCGTTTGAAGGACCTTGGATATTAATCATTCAACACTTTCGTGGTTGACTGTGGGTATTTGCT  
GATATCCAGTATTATGCAATAAAGCTGAGATTGTTGTCAGCTCACCAACAGAGTTGAAGATATCAATAAGCGCTTCCGTCGAGGTTTGTAGACT  
GAAGAAGATCGTTATGCTGCTGTTTACAACAACATGGGTGAAGCTTAAAGAGCATCTGAAACATCGTCTTATTGAGACACAAGATCCAAGAACCCCT  
ATGCGTTATGATGATGGACTCAGGAGCTCGTGGTAAACCTCTCAAACTCTCTCAACAATTCGCGGTATGCGGTGGTTGATGGCTGCTCTAACCGGACGT  
ATCATGGAATTGCCAACTCTTAAACCTTCGTTGAAGGTCTTAGTGTTTTGAAATGTTCTTCTCAACTCAGCGTGCAGCGTAAAGGTATGACTGAT  
ACGGGCCCTTAAGACAGCCGACTCAGGTTACCTTCGTTCTGTTGTTGACGTTGCGCCAAAGATGTTATTATTTCGTGAAGCTAGACTGTGGAACGAC  
CGCGGTTTGACAATCAGCACAATTAACAGATGGTAAGAGGTTACTGAGACCTTGAGAGCGGTTGATAGGACGTTATAGTAAGGTCAATCAAC  
CATCTGAGACAGGTGAAATTCCTGTTGGTGCAGATACCTTAATTACTGAAGATATGGCTGCTAAAGTTGTTAAAGCGGGCGTTGAGGAAGTAAC  
ATCCGATCAGTATTTACATGTAAACATCGCCATGGTGTTCGTCGCTACTGTTACGTTATTAACCTTGGCAACAGCTGATGCTGTTGAGGTTGGTGAA  
GCAGTTGGTACTATTTCAGCTCAATCTACTCGGTGAACCGGACGAGCTTACAATTCGCTACCTTCCATACCGGTGGTGTGCTCTCAATACTGAT  
ATTACACAAGGTCTCCACGATATCCAAGAAATCTTTGAAGCAGCTAACCTTAAAGGTGAGGCACTTATTACTGAAGTTAAAGGTGAGGTGTTGCTGCA  
ATTGAAGAAGACTCTTCAACAGCTACTAAGAAAGTATTCGTTAAAGGTGAGACAGGTGAGGGAGAATACGTTGTTCCATTTACAGCACGATGAAA  
GTTGAAGTTGGTGATGAAGTAGCTCGTGGTGGCGCTTAACTGAAGAGATCTATCCAACCAAACGCTCTCCTTGAAGTTCTGATACATTTATCTGTT  
GAAACGCTACCTACTTGTCTGAAGTACAAAAGTTTACCGTAGCAAGGGGTGAAATCCGAGATAAACAGCTTGAGGTATGGTTTCGTTCAATGCTC  
GTTAAAGTTCTGCTCATGATTCAGGAGATACAGATCTTCTTCAGGTACACTTATGATATTTCAGACTTTACAGTGTAAACAGAGATGATTTGTT  
ATTTCTGGTGAATCCCTGCGACAAGCCGTCCTGTCCTTATGGGTATTACTAAGGCTTCCTTGAACCTAAATCATTCTTATCAGCTGCATCCTTC  
CAAGAAACAACAGCTGCTCTTACAGTGTCTGCTATCCGTGGTAAAGAAATCACTTACTTGGTCTTAAAGAAAATGTTATTATCGGTAAATCATT  
CCAGCGGGTATCGGTATGGCTTACCGTAAATATTGAACCACTGCTGTTAAATGAAGTTGAGATTATTGAAGAACTCCTGTTGATGCAGAAGTT  
ACGGAAGTATCAACACCTCAACAGAAGAT

SEO ID 382

MINRRKVKVLVDVNRFSKMQITIASPSKVRWSYGEVKKPETINYRTLKPEREGLFDEVI FGPTKDWEACAGKYKRIYKGIICDRCGEVETRAK  
VRRRMGHIELKAPVSHIWYFKGIPSRMGLTLDMSPRALBEVIFYAAVYVIDPMDTPLEPKSLLTREYREKLEQYGYGSFVAKMGAEAIQDLLKRL  
VDLDAEIAVLKEELKSATGQKRVKAVRRLLDVLDAFKKSGNKEPWWMLNLPVIPPDLRPMVQDGLGRFAASDLNLLYRRVNRNRNRLARLLELNAF  
GIIVQNEKRMQLQEAVALDINGRRGRPI7GPGSRPLKSLSHMLKQGRFQNLLEKRVDSGRSIVAGPTLKMYYQCGVPREMAIBLFKPPVME  
IWARDLAGNVKAAKRMVERGDERIWDILBEVIEKHPVLLNRAPTLHRLQIQAFEPVLIDGKALRLHPLVCEAYNADFDGDQMAIHVPLSEEAQAEA  
RLMLLAAEHLNPKDGKPVVTPSQDMVLGNYYLTMEDAGREGBGMIFKDHDBAVMAYQNGVYHLHTRVGIADVDSMPNKPWTEBQKHKIMVTTVGKI  
LPNDIMPEDLPYLIEPNANLITEKTPDKYFLEPGQDIQAVINDLEINIPFKKKNLNGINIAETFKFRFTTETSAGFLDRLLKDLGYHSLAGLTVGIA  
DIPVIDNKAEIIDAHRHVEDINKAFRGLMTEEDRYVAVTTTWEAKELEKRLIETQDPKNPIVMMDSAGTGNISNFSQLAGHMLMAAPNGR  
IMELPILSNFIREGLSVLEMFSTTHGARKGMTDLAKTADSGYLTRLVDAVQDVIIREDDCGTDRGLTITAITDGKEVTETLBERLIGRYTKKSIK  
HPETGEILVGADTLITEDMAAKVVKAGVEBVTIRSVFTCNTRHGVCRHCYGINLATGDAVEVGEAVGTIAAQSIGBPGTQLTMRTFHTGGVASNTD  
ITQGLPRIQEI7FARNPKGEAIVTEVKGVEVAIBEDSSTRTKKVFKVGQTEGGEYVVPFTARMKVEVGDVEVARGAALTBSGIQPKRLLEVDRDLSV  
ETYLLAEVQKVYRSQGEIGDKHVEVMVRQMLRKVRVMDPGDITLLPGLTMDISDFTDANKDIVISGGIPATSRPVLMTGKASLETNSFSLAASF  
OETTRVLTDAAIRGKKDHLGLGKENVIGKIIPAGTGMARYRNI7EPLAVNEVII8GTPVDAEVTVEPTSTD

SEO ID 383

GTGGTTGACGTAATAACGTTTTTAAAGTAGCAAAATCACATTAGCCTCACCAAGTAAGGTCCGTTTACATGGTCTTATGGTGAAGTTAAAAAACCTGAA  
ACAATCAACTACCGTACATTAAACCGAAGCGTGAAGGACTCTTTGACGAAGTCATCTTTGGTCCAACAAAAGACTGGGAATGTGCGTGTGTGAAG  
TACAAACGTAATCCGTTATAAAGGGATCGTTTGTGATCGCTGTGGGGTTGAGGTAACCTCGTGCTAAAGTACGTCGTGAACGTAATGGGTGCACATTGAG  
TTAAAGCTCTCTGTATCATATATCTGGTATTTCAAAGGGATCCATCTCGTATGGGATGACTCTTGTATAGTCTGCGCCCTTGAAGAAGTG  
ATCTATTTTTCGGGCTATGTGTGTCATTGATCCAAAGATAACCCGCTTTGAACCAAATCATATTATTAACAGAACCGTGAAATACGGGTGAAAAACATCAA  
GATGATGGTCATGGGTCAATTTGTGCTAAGATGGGTGCTGAAGCCATTCAAGATCTCTTGAACAGTGTGGACTTTGGCAGCTGAAATCGCTGAATTA  
AAGAAGAGTTGAAATCTGCTTCTGGTCAAAAACGGATTAAAGCAGTTCTCGTCTTTAGACGTCCTTGTATGCTTTAACAACATCTGGAATAAAACA  
GAATGGATGGTTCCTTAACATCCTGCCGGTATTCCACCAGATCTTCGTCCGATGGTTCAATTGGATGGTGGTGGTTCGTTTTGCGGGATCAGACTTGAAT  
GACTTGTACCCGTCGTGTGATTAACCGTAATAACCGTTTGGCAGCGTTTGTGTAGAACTTAATGCCCTTGGCATCATTTGTTCAAAATGAAAAACGAATG  
CTTCAAGAAGACCGCTGATGCTTTGATTGATAAATGGTCTGCTGGTCCCAATCACTGGACAGGAAGTCGTCATTGAAATCATTGAGCCACATG  
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ATGTAATCAATGTGGTGTCCACAGTGAAATGGCTATCGAGCTTTTTAAACCAATTGTAATGCGCGAAATTGTTGCCAAAGAAATATGCTGGTAACGTT  
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CCGACTCTTCCACAGATCTGGTATTACAGGCTTTTGAACCGTCTCTTATTGACGGTAAAGCCTCGTCTTCCACCCACTTGTGTGTGAGGCCCTACAAT  
CGCCACTTCGATGGAGACCAAAATGGCCATTACAGTCCCACTTCAGAAAGCAACGAAGCTGAAGCTCGTCTTTTGATGCTGTGTCGAGAGCATCATC  
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GAAGGTATGATTTTCAAGGATAAAGACGAAGCTGTGATGGCATATCTGAATGGTTATGCTCATCTTCATAGTCGTGTGGGTATCGCTGTTGACAG  
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CCTTACCTCCAAGAGCTTAAACAATGGCCAACTTGACAGAAGGAACCTGATAAATCTCTTGAACCTGGTCAAGACATCCAAGAAGTGAATGAT  
CGCTTAGACATCAATGTGGCAATTAAAGAGAAAACCTCGGTAAACATCATGTGCGGAACCTTCAACCGTTTCGTGACACAGAAACATCAGCCTTC  
CTTGACCGCTTGAAGACCTTGGTTACTACCACTCAACCCCTTGCTGGTTTGACAGTGGGTATCGCTGACATTCTGTTATTGATAATAAAGCTGAA  
ATCATGGATGCTGCTCACCATCGTGTGAAGAAATTAACAAAGCCTTCGCTCGTGGTTTGATGACAGATGATACCGGTATGTTGCCGTTACAACA  
ACATGGCGGTGAAGCTAAAGAAGCCCTTGAAAACCGTCTGATTGAAACACAAGATCCTAAGAACCCAACTCGTTATGATGATGGACTCAGGAGCTGT  
GGTAACATCTCAAACTCTCACAGCTTCTGTTATGCTGTGTTGATGGTGCTCTTAACGGAGCGCATATGGAACCTTCTATCTTGTCAAACCTC  
CGTGAAGGTTTGAGCGTTTTTGGAAATGTTCTTCTCAACCCACGGTGACAGTAAAGGGTACCGGATACGGCCCTTAAACACGCCGACTCAGGTTAC  
CTTACTCGTGGTTTGGTTGACGTTGCCCAAGATGTTATCATTCGTGAGGACGATTGTGGCACTGATCGTGGTCTTCTTATCCGTGCTATTACAGAT  
GGTAAGAAGTTACCGAAACCGCTTGAAGAGCGTCTTCAAGGTGCTTACACAGCTAAATCAGTCAAAACCCCTGAAACCTGGTGAAGTCTTGATTGGT  
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CATGGTGTCTGCCGTCACTGTTTATGGTATCAACTTGGCAACTGGGTGATGCTGTTGAAGTGGGTGAAGCACTTGTGATATTGCTGCCCAATCTATC  
GGTGAGCCTGGTACTCAGCTTACCATGCGTACCTTCCACACGGGTGGTGTAGCCTCAAATACCGATATCACCAGGGTCTTCTCTCGTATTCAAGAG  
ATCTTTGAAGCACGTAATCTTAAGGGGAAGCGGTCTATTCTGAAGTGAAGGGGAATGTGCTCGAGATTTGAAGAAGATGCGCTCAACTCGTATCCAAG  
AAGTCTTACGTTTCAAGGAAAACTGGCATGGGCGAATATGTCATACCAATTATACAGCACGATGAAGAAGTTGAAGTTGGCGACGAAGTTAATCGCGGA  
GCTGCCCTTACAGAAGGGTCAATTCAACCGAAACGCTCTCTTGAAGTGCGTGATACCTTGTCAGTTGAACAGTACCTTCTTTCGAGAATCAAAAA  
GTTTACCGTAGCCAAAGGGGTAGAAATCGGAGACAAACAGTTGAGGTAATGGTTGCGCAAAATGCTTCTGTAAGTTCTGTGTCATGGATCCAGGTGAT  
ACAGACTGCTCTTCCAGGTACACTTATGATATTTCTGATTTACAGATGCTAAACAAGATATGTTATCTCTGTTGGTATCTCTGCGACATCTCGT  
CCTGTTCTTATGGTATTACTAAGGCTTCCCTTGAACCAATTCCTTATCAGTGCATCTTCCAAGAAACAACCTCGTGTCTTACAGATGCT  
GCTATCCGTGGTAAAAAAGATCATCTTCTTGGTCTTTAAAGAAAGATGTTATCATGGTGAATCACTCCAGAGTACGTGTTATGGCTGCTTACCGT  
AACATTGAACCACCAAGCGATGAATGAGATTGAAGTGATTGATCATACAGAAGTCTCAGCAGAAGCCGCTTTTACAGCAGAAGCAGAA

SEQ ID 384

VVDNRFKSMQITLASPSKVRWSYGEVKKPETINYRTLKPEREGLFDEVIFGPTKDWEACGKYKRIRYKGIVCDRCGVEVTRAKVRRERMGHIE  
LKAPVSHIWYFGKGPSRMGLTLDMSFRKALBEEVIFYAAVYVVIDPKDTPLEPKSLLTREYREKLBQYGHGSFVAKMGAEAIQDLLKRVDLAABIAEL  
KEELKASAGQKRIKAVRRDLVDLAFNKSKEPKEMWMLNLIPLVPPDLRPMVQLDGRGFAASDLNLDYRRVINRNNRLARLLBELNAPGIIVQNEKRM  
LQEAVALDLINDGRGRPTTGPGRSPLKSLSHMLKQKGRFQNLHLKGRVDSGRSVIAVGTLKMYQCQGVREMAIELFKFPVMEIRLVAKEYAGNV  
KAAKRMVERGDERIWDILEEVIKEHPVLLNRAPTLHLRGLIQAFEPVLIDGKALRLHPLVCEAYNADFDQDMQAIHVPILSEEAQAEARLLMLAAEHI  
LNPDKGKPVVNTSDQDMVLGNYYLTMEDAGREGGEMI FDKDKBAVMAYRNGYAHLSRVGIAVDSMPNKPWKDNQRHKIMVTTVVGKILFNDIMPEDL  
PYLQEPNNANLTGETDPKYFLEPGQDIQEVDIRDLNDVAFKKKLNGLNIIAETFKFRFTTETSAFLDRLDKDLGYHSTLAGLTVGIIADIPVIDNKAEL  
IDAHAHRVBEINKAFRRLGLTDDDDRYAVTTTWEAKEKQLBIETQDPKNPIVMMMDSGARGNISQVLQAGMRQMLAPNFRIMELPILSNF  
REGLSVLEMMFFSTHGARKGMTDLTAKTADSGYLTRLVDAVQDRIREDDCQDRGLLIRAITDAGKNEVTFTELRLRGLRYTRKS VKHPETGEVLIG  
ADQLITEDMARKIVDAGVEEVTTIRSVFTCATRHKVYCRHCYGINLATGDAVEVGEAVGTIAAQSIGEPGTQLTMRTFHTGGVASNTDITQGLPRIQE  
IFYEARNPKGEADVITEVKGNNVEIBEDASTRTKKVYQKGTGMGEYVIPFTARMKVGEDEBVRNGAALTBSGIQPKRLLEVRDITLSVETYLLAEVQK  
VYRSQGEVIGDKHVEVMVVRQMLRKVRVMDPGDITLDPGLTNDISDTFANKDIVISGGIPATSRPVLMTGKASLETNSFLSAASFQETTRVLDTA  
AIRGKKDHLGLKENVITGKIIPAGTGMARYRNIEPQAMNEIEVDHTEVANSAEAVFTAAEB

SEQ ID 385

ATGTATCAAGTTGTA AAAATGTTTGGTGATTGGGAACCATGGTGGTTTATTGAAGTTGGGAGGAAGATATTACTGAAATTGCTGAGTATGATACC  
TTATCAGAAGCTTTTGCTCTATTTTCAAGAGGAGTGGGATAGGGGACAGGAAAAGTGGCCTTATTTTCAAAGTAAGTCTAGTTTGTGGCAACGTTT  
TGGAGTATAAAAGAAAAACGTTGGTGTGAAGAATGTGATGAGTACCTCCAACAGTATCATTTCCTTAATGTTATTGAAAGAAATGGCAAGAAATTCCT  
AAGGAAGAATCTATTGAGCGATTGAAGTATTTAATAAGATAGCTGAGTTGCCATCGGCATGTTCTTTAAATTTG

SEQ ID 386

MYQVVKMGFDWEPWWFIEGWEEDEITIAEYDTLSEALLYFQEEWDRGQEKWPYFQSKSSLLATFWSIKEKRWCEECDEYLLQQYHSLMLLKWEQEI  
KEESIERFEVFNKIAELPSACSLNL

SEO ID 387

ATGTAATCAAGTAATTTAAATGTATGGTGATTGGGAGCCTTGGTGGTTCATCGATGGATGGCAAGACGATATTATAGATGAGCAACAATTTAGTGAC  
TGGCAAGAAGCGCCTTGATTATTTTAATCAAGAAATGGCAGCGCATGAAAGCTATTTTTCTAGTTATCATAGTCAAAAGAATTTGTTAGCTACTTTT  
TGGGAAAAAGAAGATAAAAGATGGTGCGAGGACTGTGACGAAGATTGCGAGGTTTCACTCTCTTTTACTCCTTAAAAATAAAGATATTGTACCA  
AGCAATAATTATATCCCTGAATTTGAACAACGAAATGATTCAACCAGGTAGCTTATCTTTGCAAGTTAAACCTT

SEQ ID 388

MYQVIKMYGDWEPWWFIDGWQDDIIDEQQFSWQREALDYFNQEWORMKAIFFPSYHSQKNLLATFWEKEDKRWCEDCDEDLQQFHSLLLLKNKDIVP  
SNNYIPEFEQRNDSPQVAYLCKLNL

SEQ ID 389

ATGGTTCATCATTAGCAAAAGCAAGTCATTTCATCAGGCAGTAGAAGTAAATGCTCAAGATATTTATATCATTTCCCAAAGGTATTGTTATGAACCT  
TATATGCGTATTGATGATGAAAGGCGGTTTATTGATGTTTTTGAGTTTAATAGGATGGCTAGTCTTATTAGTCACTTTAAATTTGTGGCAGGCATG  
AACGTTGGAGAAAAAGACGAAGTCAATTAGGTTCTTGTGACTATGAACGTGTCAGAGGGAAGACTGGTTTCATTACGACTATCGAGTGTGGGAGAT  
TATCGTGGTCAAGAATCTTTAGTTATTCGTATTTTGTATTCAAGTTCATCAGGACTTAAAAATTTGGTTTTGATATAATATAAGCAAATGAAGGAAGTA  
CTGGTATATAAGAGGGCTTATATCTTTTTCCGGCCCTGTGGGAGTGTTAAAACAACTCTCATGTATCAATTAGCTTCAGAAGTATTTAAAAATAAG  
CAAAATTATACAGATTGAAGATCCGGTAGAATAACAAGATGACAAGATGTTTCAACCTCAATTGAATGAGGATATTGGAAATGACTTATGATCTTTTA  
ATCAAACGTCTTTACGGCATCGTCCAGATATTTTAATTATCGGAGAGATTAGAGATCAAGCGACGGCCCGTGCTGTTATTCGTGCAAGTTTAAACG  
GGAGTGATGTTTTTTCTACTATTCATGCTAAAAGTATTCGGGAGTCTATGATAGGCTTATAGAATTAGGGGTTAACTATCAAGAGTTAGAAAAT  
AGTCTAAAATTAAAGCATATCAACGTTTAAATTGGAGGAGGAAGCCTAATTGCACTTTGAGACAGGTAATTTTAAAAAACACCTCATCAGACAAGTGG  
AATAGACAAGTGGATATCTTGGCTGAAGAAGGACATATCAGTAAGAAACAGGCACAAGTCGAAAAAATTATCCCTCAAGAAACAACGGAAAGTAGT  
CCAACTTTTT

SEO ID 390

MVQSLAKQVHIQAVEVNAQDIYIIPKGCDCYELMYMRIDDERRFIDVFEFNRMASLISHFKFVAGMNVGEKKRSQLGSCDYELSEGRLVSLRLSSVGD  
 YKQESLVLIRILYSGHQDLKYWFDNIQMKQEVLGIRGLYLFSGPVGSGKTTLMYQLASEVFKNQIITIEDPVEIKNDKMLQLQLNEDIGMTYDAL  
 IRLSLRHRPDIILIGEIRDQATARAVIRASLTGMVVFSTIHAKSIPGVYDRLELGVNYQLENSLKLIAYQRLIGGSLIDFETGNFKKHSSDKW  
 NROVDILAEEGHISKQOAVEKIIPQETTESPTF

SEO ID 391

ATGGTACAAGCATTAGCAAAAAGCTATTCTAGCAAAAAGCTGAACAGGTTTCATGCACAAGATATTTATATTTTGCCAAGAGCAGATCAATATGATCTT  
TTTTTACGAATAGGAGATGAAAGGAGATAGTTGATGTTTATCAGAGCGATCGGATGGCTCCTCTTATTAGTCACTTTAAATTCGTTGCAGGAATG  
ATAGTTGGTGAAAAGAGACGTTTGTCAAGTGGGTTTCATGTGATTATAAGCTTAGTAAAGATAAGCAGTTATCTTTGCGCTTATCTAGCGTGGGTGAT  
TATCGCGGCAAGAAAAGCTTAGTATTCGCTCTGCTTCATCATCAAAAATAAAGTGTACATTATTTGGTTTGTAGTAAAGATAAGCAGTCAATCAG  
GTTGGCGGTAGAGGGTTGTATTTATTTGCAGGACCAGTTGGGTCTGGGAAGACAACCTTGATGTACCAGCTGATTTTGAATTATCATCAAGAAGCA  
CAGGTTATTAGTATAGAAGATCCTGTAGAAATTAATAATCACCAAAATTTTACAATTACAAGTGAATGATGATATTTGGTATGACTTATGACAATTTG  
ATCAAACTGTCTTTACGCCATCGACCAGATATTTAGTTATTGGTGAGATTCGAGATAGTCAACAGCAAGAGCCGTTATTAGGGCTAGTCTAACA  
GGTGCCATGGTTTTTTCAACGGTTACCGTAAAAGTATCTCGGGTGTATTATGCAAGATTGTTAGAACTTGGTGTAAACGAAAGCAGACTGTCTAAT  
TGCTTAGCATTAAATGCTTACCAAGGTTACTTAATGGAGGAGCATTGATGACTCTACTCAAAACGAATTTGAATATATTCTCATCGAACTGG  
AATCAACAATTTGATCAGCTTCTTGAGGAGGACATCTCAATCCCAAGCAAGCTAAGCTTGAAAAAATTATC

## SEQ ID 392

MVQALAKAILAKAEQVHAQDIYILPRADQYDLFLRIGDERRLVDVYQSDRMPLISHFKFVAGMIVGEKRRRCQVGSQDYKLSKDKQLSLRLSSVGD  
YRGGESLIVIRLLHHQNKSVHYWFDGLTKVANQVGGRLYLFAGPVGSGKTTLMYQLISNYHQEAQVISIEDPVEIKNHQILQLQVNDIDGMTYDNL  
IKLSLRHRPDILVIGEIRDSQTAARAVIRASLTGAMVFSVTHAKSISGVYARLLELGVTKAELSNCLALIAVQRLNNGGALIDSTQNEFEYYSSSNW  
NQIDQLLEAGHLNPKQAKLEKI I

## SEQ ID 393

ATGGTCACTCTCTTAAAGAGGAGTAAGTTATTGTCTGATTGTTATACAGATAGTATGAATAAGGCATTATTAGAGGGAAAAGATTTATCAAAAATG  
TTAGGAGAGTTAGGTTTTTCTGACACTGTTATCACACAGGTTGCAATTAGCTGATTTGCATGGTAACATTTCAAGGAGCCTACTAAAGATTGAGTCT  
TATTTAGCTAATCTTTTGTAGTTAGAAAAAAGTAATAGAAGTAGCTACTTACCATTGATATTATTGTCTTTTCTGGTGCTAATTATGATTGGC  
CTTAGGAATTATTAAATGCCCAATTAGGAGAAAAATAATTTTGCACTAGACTGATTACAAATGTGCCGAATATTTCTTATTACTTTTAGCAGTT  
GTACTTATTTTACTTTTAAATATTTTATATTATCAAAAGCGATTGTGCGCATTAAGTAGCTTGTTTTTTAAACAATTCCTTAGTTGGATCA  
TATGCTTAAGCTTTTAACTGCTTACTTATGCCGTGATGGGGAATTTATTAAAGTCAAGGTATTGAATTGGACCAAAATTTAAAGTAATGCAAA  
AATCAGAAATCCAACTTTTAGGGAATAGGATATGACATGGAAGAAGGTTTTCTATCAGGTAAAGCATTTCACCAAAAAGTATTAGACTATCCG  
TTTTTCTTAACTGAGCTTAGTTTAAATGATTGAATATGGCCAAGTTAAGGCCAAATTAGGAACAGAGTTAGATATATATGCTGATGAGAGGTGGGAG  
GATTTTTTACAAAATTAGCTAGAGCGACCCAGTTAATCCAACCCGTTATTTTTATTTTTTGTAGCTCTTATCATTGTTATGATTTATGCAGCAATG  
CTGTTACCAATGTATCAAAATATGAGAGATATTATCA

## SEQ ID 394

MVTFLLKRSKLLSDCYTDSMNKALLLEGKDLKSKMLGELGFSDTVITQVALADLHGNISRLLLKIESYLANLLLVRKKVIEVATYPLILLFLVLIMIG  
LRNYLMPQLGNNFATRLITNPNIFLLLLAVLIFSLIFYIIQKRLSRIKVACFLTITPLVGSYVKLYLTAYYAREWGNLLSQGIELDQIVKVMQ  
NQSKLFRFIEIGYDMEEGFLSGKAFHQKVLDPYFFLTLESLMIEYGVQKAKLGTBLDIYADEKWBDFFTKLARATQLIQPVIFIFVALIIVMIYAM  
LLPMYQNMELIS

## SEQ ID 395

TTGATCAGCTTCTTGAGGAGGACATCTCAATCCCAAGCAAGCTAAGCTTGAAAAAATTATCTAGTAAACATCAGCATAAATTCATTCAATTACTA  
GCTAATCTTTTATCTACAGGATTTAGCTTCGAGAGGTTATTGCTTTTTTAAAAAGAGCCAGTTGCTTCAGCTAGATTATGTTCTTAAATGGAA  
GAGTCTTTTATTAAGAGGACAAGGCTTAGCAGATATGTTGTGCGGTTTAGGTTTTTTCAGATGCTATTCTTACTCAAATGATTTAGCTGATAGACAC  
GGTAATATTGAACAACATTAGTAGCGATTCAACATTACTTGAACCAATGGCAAGGATCAGACGAAAACTGTTGAAGTTATCACCTATCCTCTT  
ATTCCTTTTACTTTTCTTTTGTGATGATGCTAGGGTTGAGACGCTATTAGTCCCTCAATTAGAAACTCAAAATCAGATAACTTACTTTCTTAAAC  
CATTTTCTGCTTCTTTATAGGTTTTTGTCTCAGGCTCTTATTTTGTGTTGCGGATGGTATGGCTACGATGGCGATCTCAAAGCCGCTTGAACTC  
TATAGTCCGCTTAAGCCTTATCTTTTATAGGTAACCTGTTTAAACAATACTTAACTAGTTATTATGCTAGAGAAATGGGTCAGTTAATGAGTCAA  
GGTCTTGATTTGATGACTATTTTAGACATTATGGCCATTGAGAAATCCTCACTAATGAAAGAATTAGCTGAGGACATCAGAATGAGTCTGCTTGAA  
GGGCAAGCCTTTACATTAAAGTAGCTACCTACCTTTTTTAAAAAGAAATTAAGTTTAAATGATTGAATACGGTGAATCAATCGAACTGGGG  
GCTGAGTTGGAATCTATGCCAGGAAAGCTGGGAAACAATTTTTTAGTCAGCTTTATCAAGTGACACAACCTTATTCAACCAGCTATTTTTTTAGTA  
GTTGCTGTGACAATCGTCATGATTTATGCGGCAATCCTATTACCAATTTACCAAAATATGGGAGGTATTTTT

## SEQ ID 396

LISFLRQDISIPSKLSLKLSSKHQHKFIQLLANLLSTGFSFAEVIAFLKRSQQLQLDYVLKMEESLLKGQGLDMLSLGFGSDAILTQISLADRH  
GNIETTLVAIQHYLNQMARIRRTVEVITYPLILLFLFVMMGLRLYLVPQLETONQITYFLNHFPAFFIGFCSGLILLFGMVWLRNRSQSRLKL  
YSRLSRYPLGLKLLKLYLSYYAREWGLIGQLDLMLTILDIAMAEKSSLMKELAEDIRMSLLEBQAFHIKVATYPPFKELSLMIEYGEIKSKLG  
AELEIYAQESWEQFSSQLYQVTLIQPAIFLVAVTTIVMIYAAILLPYQNMGGIF

## SEQ ID 397

ATGAAAAATTTATGTTAAAAATGTAAGGATAAGAAGGTTAAAGCATTTACACTTTTAGAATGTTTGGTAGCATTTGGTTACAATCACAGGAGCTTTA  
CTAGTTTATCAAGGACTGACAAAATGTTGGCTCAACAGATAGTAGTGATGCTCTTCTCCAGTCAGTCTGAATGGGTGTTATTAATCAGCAACTA  
AATGCAGAAATTTGAAGGCGCTCATCTGGAATATTTAAGACAGAACAACTTTATTTACGTAAGCAAGATAAGATTGTAACTTTGGCAAACTTAAT  
AAAGATGATTTCCGTAAGACAGGTTATGATGGTCGAGGTTATCAACCAATGGTTTATGGGTTAGACAATGTCAAATGAGTCAGACCAAAAGTATG  
GTAAACTTGTTTTTATTTTAAAGGACGGGTTAAAAAGGACATTTTACTATGATTTTAAAGAAGAAACT

## SEQ ID 398

MKNLLKCKDKKVKAFITLLECLVALVTITGALLVYQGLTKLLAQIIVMSSSSQSEWVLLTQQLNAEFEGAHLEYLRQNKLYLRKQDKIVTFGKSN  
KDDFRKTYDGRGYQPMVYGLDNCQMSQTKSMVKLVFYFKDGLRTRFYDFKEET

## SEQ ID 399

TTGAGTAAACAATTAAGTAACATAAAAGCTTTTACCCTTCTAGAGGCGTTAATAGCCTTACTCGTGATATCAGGGTCTTTATTGGTTTATCAAGGT  
TTGACCCGAACCTTCTTAAACATAGCCATTATCTAGCCCGTCATGATCAAGATAATTGGCTCTTATTTTCTCATCAATTGCGAGAGGAGTTAAGT  
GGACCAAGGTTTTTACAAAGTAGCTGATAATAAACTATACGTTGAAAAAGGAAAGAAAGTACTAGCTTTTGGCCAATTTAAAAAGTCATGATTTTCGA  
AAATCAGCTAGTAATGAAAAAGGATCAACCCATGTTATTTGGAATATCACGTAGTCATATTACATAGAGCAGTCACAGATTGCTATTACTTTA  
AAGTGAAAAAGTGGGTTAGAAAGGACTTTTATTATGCTTTTCAAGAC

## SEQ ID 400

LSKQLSNIKAFTLLEALIALLVISGSLVYQGLTRTLKXSHYLARHDQDNWLLFSHQLERELSGARFYKVADNKLYVEKGKKVLAFGQFKSHDFR  
KSASNGKYQPMPLFGISRSHIHIEQSQCITLWKXSGLERTFFYAFQD

## SEQ ID 401

ATGAATTTTGAAAAAATTGAGACAGCCTATGAGCTGATTTTAGAAAAATATCCAAACGATTGAGAACCAATTAACAACTCATATTTATGATGCCTTA  
ATTGAACAGAACTCTTATTACCTTGGTTCAAGTTGTGATTAGATATGGTTGTGGTGAATAACCAAAATTAAGTCACTTGAAGTCAAGAA  
GAATGGCGTCGCACTTTCCAGTTTCAATTTTATCAAACTGCGCAACAGAGCAATTAACAGCTAATCATCAGTTTACGCCAGATAGTATGGTTTT  
ATCTTGTTATTTCTTTTGAAGAATTAACGAGTCAAGAGACAGTGATGCTTTGGAATTTGAAGTGGAACTGGGAATTTAGCTCAGACTCTCCTC  
AATAACAGCTCGAAAGAGTTAAATATATGGGCATTGAAGTTGATGATCTTTTATTGATCTATCAGCAAGCATTGCTGAAATTTATAGGTTCTAGT  
GCCCAATTTATCCAAGAGGATGCTGTTAGACCACAAATTTGAAAGAAAGCGATTAATCATTAGTGATTTACCAAGTTGGCTATTATCCTAATGAT  
GGTATTGCTAAAGTCTGATCAAGTCTTAAAGCAGTCAACCTTATGATGAGCAATCTTAAATATTTGAAAAAGAT  
GGAATCGCTATATTTTAGCACCCGAAAACCTTTTAAACAGTCCACAAAGTGATTTGCTGAAGGAGTGGTTAAAGGATATGCAATGCTATTGCC

GTTTTAACCTCTACCAGAACTATTTTTGGAAGTCGTCAAAATGCGAAATCTATATTTGTTCTCAAGAAGCAAGCAGAACAAAAACAGAAACCTTT  
GTATATCCGCTGACAGATTGCGAAATCGTGAGAATATGGCAAACCTTATTGAAATTTTCAAAATGGAGCAGAGAAAATAGTCATTACTCAAAA  
AATATGATAAAA

## SEQ ID 402

MNFEK1ETAYELILENIQT1ENQLKTH1YDAL1EBQNSYYLGSSCDLDMVVVNQKLRLDL1SQEWRRTFQF1FIK1SAQTEQLQANHQTTPDSIGF  
ILLFLLLEELTSQETVDVLEIGSGTG1NLAQTL1LNSSKELNYMG1EVDLL1DL1SAS1AE1IGSSAQFIQEDAVRPQ1LKESV1I1SDL1PVGY1PND  
GI1AKRY1VSSSK1EHTY1AHL1LMBQ1SLKYLK1KDG1A1I1FLAPEN1L1TSPQ1SDL1KEWLK1GYAD1V1AVL1TL1PET1F1GSRQ1NAK1I1FVLK1QAEQ1K1PETF  
VYPL1TDL1QNREN1MANF1ENFQ1KWSREN1SHYSK1NM1K

## SEQ ID 403

GTGACACTTCTTTTCAATTTCAAGTGTAATTTGGTATGATAAGGTTATGACTTTTGAAAAAATGAAGAAGCTTATCAGCTGCTCTTAGAGAAGCTGT  
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GCTCAAAATAGTGATAAACTGAAAGCCTTGTGCTTGACAAAAGAAGATGGCGTAAGGCCTACCAGTTCTTTTATTAAGGCAGCTCAGACTGAG  
CAACTCCAGCAACCACTCAGTTACACACGATGCTATTTGCTTCACTTCTGCTGATCTTTTGAACAATTGAGTGATAAAGATAGCTTAGAGGTA  
CTTGAGATTGGAAGTGGAAGCAACCTAGCCAAACCTCTTCAACAACACGAGCAAGAGCCTTGATTATGATGGGATTGAACCTTGATGATCTC  
TTGATTGATCTGTCAGCCAGTATTGCTGAGATAATGGATTCTTCAGCTCATTTTATTCAAGAAGATGCGGTAAGGCCTCAATTACTAAGAAAGT  
GACATTGTCATCAGTGACTTACCAGTTGGTTATTTATCTTAACGATGATATTGCCAAACGGTACAAGGTGGCTAGTTAGATAAGCATACCTATGCC  
CATCATTATTAAATGGAACAGTCTTTAAATACTTTGAAAAAGACGGTTTTCGCGATTCTTCTGGCACCAGTCAATTTATTGACGAGCCCTCAGAGC  
CAGTTGTTGAAACAGTGGTTAAAGATTATGCTCAGGTGGTGACCTTGATTACGCTACCAGATTCTATTTTGGTCATCCCTCAAAATGCCAAGTCC  
ATTATTGCTCTTACAAAAACAAACAGACCACCAATGGAAACCTTTGTCTATCCAATTGCGGATTGGAAGCTTGACAGAGAATATTATGATTTTATG  
GAAAATTTCAAAAAATGGAACCTGAGTAATGTCAAT

## SEQ ID 404

VTLLFISSVIWYDKVMTFEK1E1EAYQLLENCQL1ENDL1KTH1YDA1VEQNSFYLGABGAS1PQVAQNSDKL1KALCL1TKEWRKAYQ1FL1KAAQTE  
QLQANHQTTPDAIGF1LLYLL1LEQLSDK1DSLE1VLEIGSGTG1NLAQTL1LNNTSK1SLDYV1G1ELDDLL1DL1SAS1AE1IMDSSAHF1QEDAVRPQ1LKES  
DIV1SDL1PVGY1PND1DI1AKRY1KVASSDK1HTY1AHL1LMBQ1SLKYLK1KDG1A1I1FLAPV1N1L1TSPQ1SLLKQ1WLKDY1AQV1VTL1TL1PDS1F1GHP1SNAK1S  
I1VLQK1QTDHP1METFV1YPIR1DLK1LAEN1I1HDFMEN1FKK1W1K1LSNVN

## SEQ ID 405

ATGTCAAAAACAATAGCAATTAATGCTGGAAGTTCAAGTTTGAAATGGCAATATATGAAATGCCAGAGGAGAAAGTAGTTGCCAAAGGGATATC  
GAACGTATTGGTTTGAAAGATTCTATTTCGACTGTAAATTTGACGATAAAAAAGATGAACAAATTTAGATATCGTAGATCATACCCAAGCTGTT  
AAAATTCTTTTAGAAGATCTAACAACCATGCTATTATCAAGAGCTTAAATGAAATTACAGGTGTTGGTCATCGTGCTGTTGCTGGTGGTGAATAT  
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ATTCTGTCGCTTTAGAGAAATCTTACCAGATATCACGAGTGATGTGTATTGATACAGCCTTCCATACAACAATGCAACCTCATACCTACTTATAT  
CCAATCCACAAAAGTACTATACCTGATTATAAAGTACGTAATAACGTTGCACACGGGACAAGCCACCAATACGTTGCACAAGAAAGCAGCTAAGCAA  
TTAGGACGTCCTTTAGAAGAAATAAATTAATCACAGCACATGTGGGTAATGGTGTCTTATACAGCAAATATCATGGACAGTCTATTGATACA  
TCAATGGGATTACACCACTTGCAGGACCAATGATGGGAACACGTTGAGGAGACATTGATCTGCGATTATCCCTTATCTTGTAGCTAATGATCCA  
GAATTGGAAGATGACAGAGCTGTGTGTTAATAGCTTTAACAACAATCAGGATTGCTTGGAGTATCAGGAACCTCAAGTGATATGCGAGATATTGAA  
GCAGGTCTTCAAAGTAAAGATCCAAATGCAGTGTTAGCCTATAATGTCTTTATTGACCGTATTAAGAAATTTATTGAGACAATCTTGGCAGTATTA  
AATGGCGCGGATGCTATTATTTTACTGACAGTATGGGAGAAATGCGCCATTAAATGCGTCAAGATGTTATCGCAGGATTATCATGTTTGGCATT  
GAACCTGATCCAGAAAAAATGTTTTTGGTTATTTTGGAGATATCAAAAACAGATTCAAAAGTGAAGGTTTTAGTTATTCCTACTGATGAAGAA  
TTAATGATTGCGCGTGACGTTGAGCGCCTTAAAGCTAAA

## SEQ ID 406

MSKTI1AINAGSSSLKW1LYEMPEEKV1VAKG1IERIGLKDS1S1TVKFDDK1KDEQ1ILD1VDHT1QAVK1ILLED1LTKHG1I1KDFNE1ITGVGHRV1VAGGEY  
FKESALVDDKVVEQVE1LSALAPLHN1PAAAG1IRAFRE1ILPDI1TSVCVFDTAFHTT1MQPHT1LYPI1PQKY1YTDYKVRKY1GAHGT1SHQY1VAQEA1AKQ  
LGRPLEELK1L1TAHVNGV1SITANYHGQ1SIDTSMG1FTPLAGPMMG1TRSGD1DPA1I1PYLVAND1PELEDA1AAV1VNMLN1KQSG1LLGV1SGTSS1DMRD1E  
AGLQSKDPNAV1LAYNV1FIDRIK1F1G1YQLAV1LNGAD1A1IFTAGM1GENAP1LMRQDV1AGLSW1FG1ELDP1EKNV1FVG1YF1GDI1TKPD1SKVK1VLV1PTDEE  
LMIARDV1ERLKAK

## SEQ ID 407

ATGTCAAAGACAATTGCAATTAATGCAGGTAGTTCTAGTTTAAAAATGGCAACTTTATCAGATGCCAGAAGAAGCAGTGTTAGCACAAAGGAATTATT  
GAGCGTATCGGCTCAAGGATTCTATTTCACAGTTAAGTAGCATGGCAAAAAGAGAGCAAAATCTTGATTTACAGATCATACAGAAGCTGTT  
AAAATCTTATTGAACGATTGTATTCACTTTGGAATCATTGCAGCTTATGATGAAATTACAGGAGTTGGACACCGTGTTGTTGCTGGTGGTGAACCT  
TTCAAAGAATCCGTTGTTGTTAATGACAAAGTTCTTGAACAGATTGAAGAATTATCCGTTTATAGCTCCACTTCACAACTCTGGAGCGCGCGCAGGG  
ATTCTGTCCTTCCGTGATATTTTGCAGATATTACAGTGTTTGTGTGTTTGACACGTCATTTCACACTAGCATGGCAAGCATACTTACCTTTAC  
CCAATTCCTCAAAAATATTATACGGACTACAAGTTCTGTAATATGGGGCGCATGGGACAAGTCATAAATATGTAGCGCAAGAAGCTGTCTAAATG  
CTTGGTCTGCTCATTAGAAGAATAAACTAATTACTGCTCATATTGAAATGGTGTCTCAATTACAGCTAATTACACCGGTAATACAGTTGATACC  
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GAGTTAAAAGACGCTGCTGACGTTGTTAATATGTTAAACAAAAAATCAGGTCTTAGTGGGGTGTGAGGCATTCTAGTGATATGCGTGATATCGAG  
GCTGTTTACAAGAAGATAATCCAGATGCTGTTTACGTTTACAAATCATTCTTATTGATCGCATTAAAAATGCATTGGTCAATATTTGCTGTTTTG  
AATGGAGCAGATGCTTTGGTCTTTACAGCTGGTATGGGTAAGAAATGCACCATTTGATGCGTCAAGATGTTATTGGTGGCTTAACATGGTTCCGAATG  
GACATTGATCCGAGAAAAATGTTTTTGGATACCGTGGTGACATTTCACTCCTGAGTCAAAAGTGAAGGTGCTTGTATCTCAACAGACGAAGAA  
TTGTGTCATCGCGCTGACGTTGAACGTTTAAAAAATACAAA

## SEQ ID 408

MSKTI1AINAGSSSLKW1LYQMP1EEAVLAQ1G1IERIGLKDS1S1TVKYDGK1KEEQ1ILD1HDHT1EAVK1ILLND1LHFG1I1AAYD1BITGVGHRV1VAGGEL  
FKESV1VNDKVLEQ1EELS1VLAPLHN1PGAAG1IRAFRD1ILPDI1TSVCVFDTSFHTSM1AKHTY1LYPI1PQKY1YTDYKVRKY1GAHGT1SHKY1VAQEA1AKM  
LGRPLEELK1L1TAH1NGV1SITANYHGK1SVDTSMG1FTPLAGPMMG1TRSGD1DPA1I1PYL1EQD1PEL1KDAAD1V1VNMLN1K1K1SG1VSG1SS1DMRD1E  
AGLQEDNPDAV1LAYN1IFIDRIK1K1G1YFAV1LNGAD1ALV1FTAGM1GENAP1LMRQDV1IGGL1TWF1GMD1D1PEKNV1FVG1YR1GDI1STPES1KVK1VLV1PTDEE  
LCIARDV1ERL1KNTK

## SEQ ID 409

ATGAAAAATTCTCTACAAAAGTTACGAAAATCTAGGAAATTAAGTCAAGCAGAACTTGACAGTTGCACCTTGGAGTTACTAGGCAAACTATTATTTCT  
CTAGAAAAAGAGAAATACACGCATCTTTGGAGCTAGCATTTAAGATAGCGCGTTATTTTGATAAACAATTTAGGGAAGTTTATTATTATACAGAA  
AGTGAAGGAGGA

## SEQ ID 410

MKNSLQKLKRSKLSQAE1L1VALGV1TRQTI1S1LEKEKY1TAS1ELAFK1IARYFDK1Q1EBVFI1YTES1EGG

## SEQ ID 411

ATGAAGGAGATGGCAATGGAGGTTATTCTTAAAAATCGGCTCAAAGAATTACGAGCTAGAGATGGAATTAATCAAACGGAAATGGCTAAACTGGCA  
GGAGTATCGAGGCAGACCATCAGTCTCATTGAGCGTAAACGAGTACACCCCATCAGTTATAATTGCCATGAAAATTGCAAAGGTATTTAGGAACCA  
GTTGAAGAGGTGTTTCTCTAGTGGAGGTCGAGGAA



## SEQ ID 412

MKEMAMEVILKNRLKELRARDGINQTEMAKLAGVSRQTISLIERNEYTPSVIIAMKIAKVQEPVEEVFRLVEVEE

## SEQ ID 413

TTGGAGGTTTTGTGTCATTTATTATTAGAAAAGGCCAAAATTTTAGCTTTTGCTAATAGCATTTTTAGTTATTATCAACTTGTTCCCTATATTGGCT  
GTGTGGCTCCTAAAGAAATCACTATCAACGCCTTTTCTAGTATATTGTTGATTGGCTTAGAATTACTTATTATTGCTCTTTTCTTTATTATGCTC  
AAGGTTAAACAAATAATCAGATGGAAAGCATTATTGACAAGGAAAGCATTAGTTACTATTCTCTTAGGTTGGTTATCATTGAGGGTTCCACAAATT  
ATTGGTTACCTCATTATGACTATGCAAGGGGTTAAAGATACAGCAAAATCAACAGTAATTATGGAATTAACAAAGCAACTTCCACTAGCTTTGATG  
TTAATTTTTGCCATAATTGGTGCCCTTATTATGGAAGAAATTATATTTTCGCTATATTATCCCTAAAGAACTTTTTCGGAACATCAAAAATGGGGT  
TTGTGCATCGGTACTTTTAGCTTTTGTCTTATTCAATCCCCCTTCTGATATAGGTAGTTTATTATTATTATGCTGGGATGGGTGCTATTTTATCTTT  
GTTTATTATAAACTGAGCACTTAGAATATAGTATAATGATTCAATTTTATTAACAATGCTCTTGCTTATAGCGTGTTAATCAGTACAATGATGAAT  
AAC

## SEQ ID 414

MEVFSFIIRKQKILALLIAFLVINQILVPIILAVWLLKNHYQTPPTSILLIGLELLIIALFLYYAKVKQIIRWKALLTRKALVTILLGWSLRVPQI  
IGYLIMTMQGVKDTANQTVIMELTKQLPLALMLIFAIIGAPIMEEIIIFRYIIPKELFAKHQKQWGFVIGTLAFALIHSPSDIGSFIYAGMGAILSF  
VYKTEHLEYSIMIHFINNALAYSVLISTMMNN

## SEQ ID 415

ATGAAAGGATTCATTAATTTATTTAAAAATAGCAGTGCTCATTATTCTGGCTATGGTTTTCAATGTCCTTCCGATGATTTTATTGCAAAAGCAACAC  
GATATTCTTATGGTACTTAATTGGGAATTGGTATTCTTCTACTTGGTTATTGTTGGAAGTGCTCTTATTGTATTATGGGGCTTTTATCAAGCTAAG  
CAAGACACTTTTATTAAACAGCAAAAAATGAGATTGGTTGACTGGGGTTATTAGCATTTATTGTTGTTAATCATCCGTGTGATAGCTATTGTAGGT  
ACCCCTTGTTAAACAGCTATGGTCTGGTCAACAAGTGAGTGCTAATGATGCTGCAATACATACCTTAGCTAGACTTATCAAAGGTGGTTTCCCGCTT  
TATACTGCCCTATTTGTACTTGTGATAGCTTTTATCGCTCCTATTATGGAAGAACTAGTCTTTAGAGGATTTCCCTATGATTGATCTCTTCAAAGGA  
AAATCACTTAAGTGGCAGGTTTAGTGACCTCTCTGTTTTGCTTTTACCACATGCCACCAATAGTGTGAATTTATCATGTACAGCTGTATGGGC  
ATTTTTCTCTTTGTTGCTATCAAAGACGAGGAACTTAAAGATGCTATCTTGTTACATATTTTTAATAACTTGTATGAAGTCATTTTGTGTAATG  
TCAATAGGCTTAGGAGTCATA

## SEQ ID 416

MKGFINYLKIAVLIIILAMVFNVLPMILLQKQHDIPMVLNWGIGIFYLVIVGSLVLVWGLYQAKQDFFIKQKMLVDWGYLALFWLIIRVIAIVG  
TLVNLWQSGQVVSANDAAIHTLARLIKGGFPLYTALFVLVIAFIAPIMEELVFRGPFMIDLFKGSLSKVAGLVTSLSVFALPHATNSVEFIMYSCMG  
IFLFVAYQRRGNLKDAILLHIFNNLIEVILLMSIGLGI

## SEQ ID 417

ATGAAAATTGGAATTATCGGCGTCGGAATAATGGCCAGTGCAATTATTCAAGGCCTCAAACAAACCCACATGACATTATCATATCCGGATCTTGC  
TTAGAGCGTTCAAAGAAATTGCAGAAAGACTTGATGTTACTTACGCCGAATCTCATCAGTCATTAATCAATCAAGCTGATATTATCATGTTAGGT  
ATTAACCTCAACTATTGAAAGGTTCTTCTTCCACTTGATATCAAAAACCAATCATCTCAATGGCAGCAGGAATCTCCTTAGCGCGTTTAAAGC  
CAATTAACCTCGTCTGATTTACCATTTGATTCTGATTATGCGCAATATTAACGCACAAATACCTCAAAGTTGCACAGCTATTTGTTACAACAATCAT  
GTATCAGATGAGTTACGACAATTAGCCAAAGAAATTACGGATAGTTTTGGAAGTAGCTTTGATATAGCAGAAACCAATTTTGATACCTTCACTGCT  
CTAGCAGGTTCTAGCTTGCCTGCTATATCTATTTATAGAAGCCTTAGCTAAAGCAGGTGTAATAATATGGATTTCCAAAGAACAGCACTCTCT  
ATTGTAGGACAGACTGCTTAGCTTCTAGTCAAAACCTATTACAAGGACAAATAGCACCTCTGACTTAATCGACCAACTTTGTAGCCCGAGCGGA  
ACTACTATTGCTGGCCTTTTAGACTTAGAAAAAATGGTCTGACGCATAGTGTATTCTTGCCTTGTGCTACTATTGAGAAAGCAAAAAAATCTT

## SEQ ID 418

MKIGIIGVGKMASAIIQGLKQTHDIIISGSLERSKEIAERLDVTVYAESHQSLINQADIIIMLGKPKLFKVLPLDITKPIISMAAGISLARLS  
QLTRSDPLIRIMPNNIAQILQSTAI CYNNHVSDELRLQAKIITDSFGSSFDIAETNFDTFALAGSSPAYIYLFIEALAKAGVKYGFPEKQALS  
IVGQTVLASSQNLLQGONSTSLIDNICSPGGTTIAGLLDLEKNGLTHSVISAIDATIEKAKKL

## SEQ ID 419

ATGAAAATTGGCATTATTGGTGTGGCAAAATGGCTAGCGCTATCATCAAAGGCCTTAAACAAACACCCCATGAACCTTATCATTTAGGATCATCT  
TTAGAACGGTCAAAGAAATTGCGGAGCAGTTAGCACTGCCCTTATGCTATGTCCCAAGACCTTATTGACCAGGTGATCTTGTATTATTTAGGC  
ATCAAGCCTCAACTATTGAAACGGTACTCAAACCGCTTCACTTCAAACAGCCTATTATATCTATGTCAGCAGCAGGATTTCCCTTCAACGACTAGCA  
ACATTCGTAGGACAAGACCTTCCGCTGCTACGTATCATGCCAAACATGAATGCACAAATCTCCAAAGCAGTACCGCTTTAAACGGGAAATGCTTTG  
GTGTCAGGAAATTACAGCAGCTGTTGAGACTTAAACAGATAGCTTTGGTAGCACATTTGATATTAGTGAAGAGGATTTTGACACCTTTTACCGCT  
TTAGCAGGTTCAAGTCTGCTATATTTATCTCTTTATTGAGGCTTTGGCTAAGGCTGGCGTCAAGAATGGCATACCTAAAGCAAAGGCGCTGGAG  
ATTGTTACTCAAACAGTATTGGCTAGCGCCAGCAATCTCAAGACAGGATTTCTCAAAGTCCCGCAGGATTTCAATGACCAACTTTGTAGCCCGGTGGC  
ACAATATTGCTGGTCTGATGGAGTTAGAACGCTTGGCCTCACAGCTACTGTGCTGCTGCCATTGACAAAACCATCGATAAAGCTAAAGCCTTG

## SEQ ID 420

MKIGIIGVGKMASAIIKGLKQTPHELIISGSSLERSKEIAEQALPYAMSHQDLIDQVLDVLILGKPKLFETVLKPLHFKQPIISMAAGISLQRLA  
TFVQDPLLRIMPNNIAQILQSTALTNALVSQELQARVRLDTSFGSTFDISEKDFDTFALAGSSPAYIYLFIEALAKAGVKNGIPKAKALE  
IVTQTVLASASNLKTSQSPHDFIDAICSPGGTTIAGLMELERLGLTATVSSAIDKTTIDKAKSL

## SEQ ID 421

ATGTCAGATTTATTAAACAAATTTAAACCGTAACCTGAGCTTGATGGGATTGCTGGCTATGAACACAATATCCGCAACTTCTTTCGTCAGAAATA  
ACTCCTTTAGTTAGTCAAGTTGAGACAGGACTTGGTGAATTTTGGAGTTAAAAATACTCATGAGACTAATGCTCTAAAGTCATGGTTGCT  
GCCCATATGGATGAAGTCGGCTTTATGGTTAGTCATATTAGCCAGATGGAACATTTTCGTGTACTTGAGGTTGGAGGATGGAATCCCCTAGTAGTC  
AGCTCACAACGCTTTACCTCTACACAGCTTCTGGTGATGCTATTCTGTTATATCAGGCTCAGTTCTCTCTCACTTTCTTCTGTCGACAAAGCGGT  
GGAACAACATTACCCAAATAGTGACATTGTTTTGATGGAGGATTCACAGATAAAAAATGAAGCTGAAAGCTTTGGCATTGCTCCTGGCGATATC  
ATTGTTCTTAATCTGAAACCATTTTAACTGCAATCAAAAACATATTATGTCAAAAGCTTTGGGATAATCGCTATGGTGTGCTTTATGGTGACCGGA  
TTGCTAAAAAGCTTAAAGCTTAAAGCTTAGCAACACACTTATTGCTGGGGCAAAATGTTTCAAGAAGAAGTCGGACTTCGTGGCGCACATGTTTCA  
ACAATAAATCAACCCAGATATCTTCTTAGCTGTCGATTGTTCCCGAGCTGGAGATATTTATGGGGAACAAGGCAAAATAGGAGAGGGAACCTTA  
ATCCGTTTTTATGATCCCGGACATATCATGCTTAAAGATATGAGAGATTTCTTACTTACAACAGCTGAAGAAGCAGGTATAAAATACCAATATTAT  
GCTGCAATGGTGGTACCGATGCTGGGCTGCTCACCTAAAAAATAGTGGTATTCTTCTACAACATATCGGTGCTGTGTCACGCTACATTCACTCT  
CATCAACACTCTACGCTATGGATGATTTTCTACAAGCAACAAGCTTACCTTCAGGCCATCGTTAAACAAATTAGACCGCTCGACGGTGGATATTATT  
AAAGGTTAT

## SEQ ID 422

MSDLFNKIKTVTELDGIAGYEHNRNFRQEIITPLVDQVETDGLGGIFGVKNTHETNAPKVMVAAHMDEVGMVSHIQPDGTFRVLEVGGWNPLVV  
SSQRTFLYTRSGDAIPVISGSVPPHFLRGQSGGTTLPKISIDIVFDGGFTDKNEAESFGIAPGDIIVPKSETILTANQKHIMSKAWNRYGVLMVTE  
LLKSLKQDQSLNTLIAGANVQEEVGLRGAVHSTTKFNPDI FLAVDCSPAGDIYGEQKIGEGTLIRFYDPGHIMLBKMRDPLLTAAEBAGIKYQY  
AANGGTDAGAAHLKNSGIPSTTIGVCARYIHSQTLVAMDDFLQAQAYLQAI VNKLDIRSTVDIIKGY

## SEQ ID 423

ATGACAGACTTATTCTCAAAAATCAAAGAAGTTACCGAACTGGATGGCATTGCGGGCTATGAACATAGCGTTTCGTGACTACCTACGCACCAAAATA  
ACCCCGCTGGTTGACCGTGTGAAACAGACGGGCTTGGTGGCATTTTTGGTTATCAGAGATAGTAAAGCTGAAAAAGCCCCCGTATTTTAGTAGCT

GCGCACATGGACGAAGTCGGTTTTATGGTCAGTGATATCAAAGTTGACGGAAACGCTACGCGTGGTGGTATCGGTGGTGGAAACCCACTTGTGTGTC  
AGTTCACAAACGGTTTACCCTTTACACACGCACTGGCCAAAGTTATTTCCCTTATTTTCAGGATCGGTACCTCCCAATTTTTTACGTGGGGCAAATGGC  
TCTGCTAGTCTACCATATCGAAGATATTGTGTTTGATGGTGGCTTTTACGGATAAGGCAGAAGCTGAAAGATTTGGTATTACACCGGTGATATT  
ATTATCCCTCAATCTGAAACGATCCTTAACAGCCAATCAAAAAATATTATTTCAAAGCTTGGGACAAATCGCTATGGCGTTCTCATGATAACAGAA  
ATGCTTGAAGCGTTAAAGGACAAGACCTTAACAACACCCCTAATTGCAGGTGCTAACGTTCAAGAAGAAGTTGGTCTGCGCGGAGCCACGCTCTCA  
ACCACCAAGTTTCGACCCTGAACTCTTTTCGCGAGTAGATTGTTGCCTGCTGGTGATATTTATGGCAATCCTGGAACAAATCGGAGATGGTACCTTG  
TTGCGTTTCTACGACCCAGGCCATGTCTATGCTCAAAGATATGCGCGACTTCTTACTGACTACTGCTGAGGAAGCTGGTGTCAATTTCCAATACTAT  
TGTGGCAAGGGAGGCACAGATGCAGGTGCTGCACACCTTCAAATGGTGGTGTCCCATCAACCAACCATCGGAGTCTGTGCACGCTACATTCCTCT  
CATCAAACCCCTCTACGCTATGGATGATTTCGTAGAAGCCCAAGCCTTCTTACAAGCCATTATCAAAAACTGGATCGCTCAACCGTTGACTTGATT  
AAATGTTAC

## SEQ ID 424

MTDLFSKIEVTELDGIAGYEHVSVDYLRKITPLVDRVETDGLGGIFGIRDSKAEKAPRILVAHMDDEVGFVMSDIKVDGTLRVVIGGWNPLVV  
SSQRTFLYRTGQVIPLISGSVPPHFLRGANGSASLPHIEDIVFDGGFTDKAEARFGITPGDIIIPQSETILTANQNIISKAWDNRYGLMITE  
MLEALKGQDLNNTLIAGANVQEEVGLRGAVHSTTKFDPFLFAVDCSPAGDIYGNPGTIGDGTLLRFYDPGHVMLKDMRDFLLTTAEAGVNFQYY  
CGKGGTDAGAAHLQNGGVPSSTTIGVCARYIHSHQTLYAMDDFVEAQAFQAIIKKLDRSTVDLIKCY

## SEQ ID 425

ATGGTTAATCATTCAAACAGAAAGAAAAACATGAAAGAAAAATTATTAGTACCTGCTTTAAATTGTTTGCTAGGTCTACTCTTCCTAGG

## SEQ ID 426

MVNHSNRKKKHERKIIISTCFKLFARSTLPR

## SEQ ID 427

GTGTCTAATTCGGGGGGTATGGTATAATAACAGTTATGAAAAATAAAAAATCTTATTGGGACTGGCCTTGCTGGTGTGGGTTTACTGGCAGCT  
GCTGGTTATACCTTAACATAAAAAAGTAACAGATTATAAACGTCAGCAATCACTCAGACCTTAAGAGAATTTTTTAGTCAGATGGGTGATATTGAG  
GTATTTTATTTTAAATGAATTTGAATCTGATATTAAATGACCAAGTGGTGGTCTTGTCTTGAAGATGGCAGAATTTTCGAATTCATTATCGTCAA  
GGTGTCTTGATTATGTGGAGGTGAGCAAA

## SEQ ID 428

MSNSGGYGIITVMKNKKILFGTGLAGVGLLAAAGYTLTKKVTDYKRQQITQTLREFFSQMGDIQVIFYFNEFESDIKMTSGGLVLEDGRIFEFIYRQ  
GVLDYVEVSK

## SEQ ID 429

ATGAGGGATATGAGTAAAAAGAAAAATAGGTATGATTTTCAGGTATCTTTGGATTAGTTTAGCTATTGGCCTAGGAATAGTTATCAAAGATTATGTC  
CAAGACAGGCAGCGTCGACAAATGACAAGGGATTACGCACCTTTTTTTCACCTTTAGGACAAATCGAAGTTTATATATCAATCCTTGTGTCAGGTC  
AAACAAGATTATATTTAGGTGGGGTTGTTATGTCAAACGGCAAACAGTACCAATTACCTATCAGTCGACAAATTAGTTTGGAGGAGACAAG  
GGA

## SEQ ID 430

MRDMSKKIKGIMISGIFGFSLAIGLIGIVIKDYCQDRQRQMRDLRTRFFSPLGQIEVLVYNPCQVQKDYISGGVMSNGKQYQFTYHSRQISFEEDK  
G

## SEQ ID 431

ATGATTTTACCAGAATCTTATGAAGAAATAGCAGCCTATATTGATAGCACTAAGAAAGTTGTTTTCTTTTTTACAGCAGATTGGTGTCCAGATTGT  
CAATTTATATATCCAGTAATGCCATCAATTGAAAAAGATTCTCAGATTGTTGCTTTGTACGTGTTAATCGTGATGACATATAGAATTAGCTCAG  
CAGTGAATATTTTTGGGATTCCGAGTTTCGTTGTTGTGGAAATGGTCAGGAAGTGGGTCGTTTGGTTAATAAGAATCGCAAAACAAAGGCTGAA  
ATTACTAAATTTCTCGCTGAAATTAACATATAAA

## SEQ ID 432

MILPESYEBIAAYIDSTKKVVFFFTADWCPDCQFIYPVMPISIEKDFSDVFVRVNRDDYIELAQWNIIFGIPSFVVVENGQELGRLVKNRKTAE  
ITKFLAEINYK

## SEQ ID 433

ATGATCAGACCGACTTCTTATGAGTCATTAGCGACTCTTATTGAAAAAGAAAGATAAGCTGGTGTATTTTTTTACGGCAGACTGGTGTCCAGACTGT  
CAATTTATTTATCCTATTATGCCAGAAATTGAAGCAGAACTTACAGATATGACTTTTGTGTTGTTAATCGTGATCAGTTTATAGAGGTAGCACAA  
AAGTGAATATTTTTGGTATTCCTAGTTTGTCTGATGATAAGAGGTGAGGAAGTAGGGCGTCTGGTTAACAAAATGAGAAAGACAAAACCTGAG  
ATTATGCATTTTTTAGCTGCTTATCAA

## SEQ ID 434

MIRPTSYESLATLIEKEDKLVLFFTADWCPDCQFIYPIMPEIEBELTDMTFVVCVNRDQFIEVAQKWNIFGIPSFVVIEKGQEVGRLVKNRKTKE  
IMHFLAAYQ

## SEQ ID 435

ATGATTTTTTACTTATAATAGAGAGCATGTTGGTGATACCTTAATGGTTATTGTTAAGGATAGTCAAGGAGCTAAGCTAGATGTTGATCGTCGCGGA  
CAAGTAGCAGCGCTCTATCTGCAAGATAGTAAAGAAACAGTTGCTTGGAAATATCTTTGAAGTGTCAGTTAATTGTTATTGAGGGAGCAGGTCAA  
ATAACTTTATCTGATCAAGATATTAAAAATCCTTAATGCAGAACTACTGAAAGAGGATTTCGAAGACTCTCTTGTTAATAATATTGAACCTACATTT  
GTTGTGGCGCAAATTAAAGAAATAATTGATCATCCAGATAGTGACCATTTACATATCTGTCAAGCAGAAATCAACGATGGGAAGACGGTCCAAATC  
GTTTGTGGGGCACCTAATGCTTCAGTAGGTCTTAAACAGTTGCGAGCTCTCCAGGAGCTATGATGCCAAATGGTAGCCTTATTTCCAGGAAAA  
CTTCGTGGAGAAGATAGCTTTGGAATGTTATGTAGTGCTCGCAGTTAGCTCTTCCAAATGCTCCTCAAGTCAGAGGTATCATTTGAATTATCTGAT  
CAGGTAATTGTTGGAGAGTCTTTTCGACGCCAATAAACATTTGGAATAAT

## SEQ ID 436

MIFTYNREHVGDITLMVIVKDSQGAKLVDVRRGQVAVLYLQDSKETVAVNIFEVSSLVIEGAGQITLSDQDIKILNAELLKEGFEDSLVNNIEPTF  
VVAQIKEIIDHPDSHLHICQAEINDGKTQVIVCGAPNASVGLKTVAAALPGAMMPNGSLIFPGKLGRGDSFGMLCSARELALPNAPQVRGIIELSD  
QVIVGESFDANKHWKN

## SEQ ID 437

ATGATTTTTGCATACAATAAAGAACAGTTGGCGATGTCTTGATGGTTATCTTACAAGACACCAAAGATATCAAACGTCAAGTAGAACGAAAAGGC  
AAAGTAGCCCGTGTTTTTGCAGAAAGACGGGCAAAACCTTGCTTGGAAATATCTTTGAAGCGTCAAGCTTGATTACTATTGAAGGCAATGGACAG  
ATTTTTTTGACAGACGAGAACCTTGCAAGATTAAATGCAGAGCTTGCTAAGGAAGGATTTTCAGAAAGGCTTGAACCGATTGTGGGACCTGTTTTT  
GTGGTTGGTCAAAATTGTTGAGATGGTGGCTCATCCAGATAGCGACCATCTTAATATCTGCCAAGTGGCTATTGGTGAAGATCAACCGTTCAAATC  
GTAGCGGGCGCACAAATGCTGCGCTTGGTTTAAACAGATTGTTGCCTTACCAGGTGCTATAATGCCAAATGGTAGTCTGATTTCCAGGAAAA  
TTGCGTGGTGAAGAAAGTTATGGTATGATGTGCTCTCCTCGTAGGTTAGCCTTGCCAAATGCACCGCAAAACGTTGGCATTATGAATTTGATGAG  
TCAGCTGTGGTAGGAGAAGCTTTTGACCCAGCCAAACATTGGAAGGT

## SEQ ID 438

MI FAYNKEQVGDVLMVILQDTKDIKQVERKGVARVFAESGKTLAWNIFEASSLITIEGNGQIFLTDENLARNLAEELAKEGFSEERLEPIVGPVF  
VVGQIVEMVAHPDSHLNICQVAIGEDQTVQIVAGAPNAALGLKTIIVALPGAIMPNGSLIFPGKLGRGESSYGMCSPRELALPNAPQKRGIIEFDE  
SAVVGEAFDPKHWKG

## SEQ ID 439

ATGACAAATGTAAGTATTATATAAGAAATGCTGGCTAAACCTTGGGGAAAAATACAATATGAAATAAAGCTTTGCTCAATTAAGCCATATCAAAAAT  
CAGAACGTTTTAGATTTTGGAGCTGGTTTTTGTCTCACCGAACACATCTAGCAAAAGAAAACAAATGTAAGTCTGCTATTGAACCCAAATCCTAAAGCTG  
CTTTACGATAAATCAAAGTGACAAATATTATAAAATCCTAGGTTCTTACGAAGCATTAAGAGATTGGCTGATCAAGCTTTGATACTATTATTGTT  
CATAATGTTCTTGAATATATAGACAAACATAATCATCTGCTTATTTTGACGAATTTTCTCGACTTCTAAAACCCAAATGGAGAACTATCTCTCATC  
AAACATAATATAACCGGTAAATATTAACAATCAGTTATTTTAGCAATGATACCTCCACTGCGATGGAAGCTTTAAACAGGAGAAGCAAACTTTAAA  
AGTGCCAGTTTGGACAGGGAATATTTATACCTTAGAAGAACTAAAACAAAATACAAATTTATAGTTGAACGTTATCAGGGTATTCTGACCTTC  
TATTCATTACAACCAACCATTTTAAAGCTGAACTGGCTTAAACAAAATGCTTGTATCGAGCTAAGTGTGTGACAAAGCTCCTTATAAA  
GATATTGCTTTTTTGCAACACATCACACTTAAAAGTCATTG

## SEQ ID 440

MTNVTSYKEMLAKEPWGKIQYBITFAQLSHIKNQNVLDGAGFCLTEQHLAKENNVTAIEPNPKLLYDNQSDNIYKILGSYEALRDLDPQSFDTIIC  
HNVLEYIDKHNHPAYFDEFSLRLKPNGLSLIKHNITGKILQSVIFSNDTSTAMELLTGAEANFKSASFDQGNIIYTLLELKQNTNLLVERYQGIRTF  
YSLQPNHFKTETGWLNLMLAIELSVADKAPYKDIAFLQHITLKKSL

## SEQ ID 441

ATGTATAATAAGTTATTATGATTGGGCGTCTAACAGCAAAGCCTGAGATGGTAAAAACCAACTGACAAGTCAGTGACGCGTGCAACTGTTGCT  
GTTAATAGACGCTTTAAAGGAAGTAATGGTGAGCGTGAGCAGATTTTATTAATGTGGTTATGTGGGGTCTGCTAGCGGAAACCTTGGCAGCTAT  
GGGACAAAGGGCTCTTAAATTTCAATAGATGGTGAATTGCGTACGCGCAAGTACGAAAAGGATGGTCAACGCACTATATCACTGAAGTATTAGCA  
TCATCATTTCAGTTGCTAGAAAGCGGTGCCAACGTGCTATGCGTGAAAATAACGTTTCTGGTGATTGTGAGATTTAGTATTGGAAGAGAGAG  
CTCCCTTT

## SEQ ID 442

MYNKVIMIGRLTAKPEMVKPTPTDKSVTRATVAVNRRFKGNGEREADFINVVMWGRLAETLASYGTKGSLISIDGELRTRKYEKDQTHYITEVLA  
SSFQLLESRAQRAMRENNVSGDLSLVLVEEBELPF

## SEQ ID 443

ATGTATAATAAGTGATAGCAATCGGTCGTTTGGTAGCTAAACCAGAATTGGTAAAAACAGCTACGGATAAGCATGTAGCACGTCCTCTTTAGCT  
GTTAATCGAAGATTAAAGATGCTTCTGGAGAGCGAGAAGCTGATTTTATTCAGTTGTTGTTTGGGGAAAGTTAGCAGAAACTCTGGTTTCTTAT  
GCTAGCAAGGTAGTTTATGATGCTATTGATGGCGAACTTAGGACCCGCAAGTATGATAAAGATGGGCAAGTGCATTATGTGACAGAAGTTCTCTGC  
CAATCATTTCAACTGCTTGAAGTCGTGCTCAGCGCGCTATGAGAGAAAATAATGTTACTAATGATCTAGTTGATTAGTCTTAGAAGAAGATACT  
CTCCCTTT

## SEQ ID 444

MYNKVIAIGRLVAKPELVKTATDKHVARLSLAVNRRFKNAGSGEREADFISVVVWVKLAETLVSYASKGSLMSIDGELRTRKYDKDQVHYVTEVLC  
QSFQLLESRAQRAMRENNVNDLVDLVLVEEDTLFP

## SEQ ID 445

TTGCTTTTACAGAAAGCAACCTTTTTTTATTGAAAATAGAAAGGCAACGATTACAATAAAGGGGATAGAAAGCAGGTTTAAGATGGAAAAAGTC  
ATTATTTTGGATATGGACGGCGTTATTGTTGATTCCGAGTACACGTTTTTAGATAATAAGACAGAAATGTTACGTGAGGAGGGTATTGATACGGAC  
GCTCGTATCAATACAGTACATGGGACTACTTTGAATTCATGTGGCAAGCTATGAAAGAGGAGTTTGGCTTACCAGAAAACAGTAAAGAGTAT  
ATTGCTGAGATGAACAGACGCTCGACAAGCGATTGTGGCGCGTGATGGTGTAGGCCCATCAAAGGAGCTCAGCGACTGATTCTATTGGTTACACCAA  
CATGGCTATCGCTTAGCAGTTGCGTCTCTCATCTCCAATGGTAGATATTAAGCGTAATCTAAAAGAGTTGGGTGTGACAGAATGCTTTGAATACATG  
GTTACAGGAGAAGATGTATCGTCTTCTAAACCAGCACCAGATGTTTTCTTAGAGCTGCGAGAGCTTTTAGATGTAGACCTAAAGTTTGTATAGTT  
ATAGAAGATACAAGAAATGGGAGTTTAGCTGCTAAGGCAGCAGGAATGATTGCTTTGGCTTTGCTAATCCTGATTATCCACCGCAAGATTTATCA  
ATGGCAGACAAGGTTATTTCAGATTATCAAGATATCTATATTTATCTTCCGGAG

## SEQ ID 446

MLFTBSNLFLLKIERQTTITKIGIESRFKMEKVIIFDMDGVIDSEYTFLDNKTLEMLREBEGIDTDSYQYQYMGTTFFEFMWQAMKEEFGLPKTVKEY  
IAEMNRRRQAIIVARDGVRPIKGAQRLIHLWHQHGYRLAVASSPMVDIKRNLKELGVTECFEYMTGVEDVSSSKPAPDVLRAAELLDVDPKVCIV  
IEDTRNGSLAAGAAGMYCFGFANPDYPPQDLSMADKVISDYQDIYIYLPF

## SEQ ID 447

ATGTTGATGATTAAAGGAATTATTTTGGATATGGACGGTGTTTTATTGATACAGAACCTTTTTATCTGAGGCGACGAGAAGATTTTTTAAAGACA  
AAGGGAATTTCCATTGATCATTTGAAGCTTAAAGATTTTATGGGGGCAATCTTCAAGAATTATGGAAAGAGTTGTTAGGTAAAAATAGGGATGAT  
GCTATCGTTAAGCAATTACAAGTACTATGACGCTTACAACAAGCGCATAGCCCTCTTATCAAAAAGTGTGATTACAGAAGTGAAGTCTTGT  
CTTGAACAGTTTGAAGAAACCAAGGTATTAACTGGCTGTGGCATCAAACTCGAAGCGTCAGGATGTTTTGTTGGCGTTGGAGACAAACGCAATAAAA  
GATTATTTTGAATAATCTAGCGCGTGAAGATGTTTCTAGAGGCAACCTTATCCAGATATTTATAATAAAGCAGTACAAAACTAGGATTACAA  
AAAAAACAAGTGTGTTAGTAGAGGACAGCCAAAAGGCAATTGCTGCCGCCAAGCAGCAATCTGACAGTTTGTGCCATTACCGACTACCGATAT  
GGCATTGATCAGAGTCAAGCTGATCACAGATAGATCATTTAGGACAAGTGTGTGTAATAAATCGGTTGTTTGGATCG

## SEQ ID 448

MLMIKGIIFDMDGVLPDTEFFYLRRREDFFKTKGIPIDHLNSKDFIGGNLQELWKEKLNRRDDAIVKAITDDYDAYKQAHKPPYQKLLITEVNSC  
LEQLEKQKGLKLVASNSKRQDVLLETTQIKDYFEIILAREDVSRGKPYDPIYNKAVQKGLQKQLLVVEDSQKGIAAAANLTVFAITDYRY  
GIDQSQADHKIDHLGQLCVKIGCFGS

## SEQ ID 449

TTGGTGGACCTCTGGTTGGATCAATTGTTGGTTTTATTGGAGGAGTTTCATCGCTTTTTTCAAGGAAGCTTTTCAGGTTCTTTCTATATTGTGAGTT  
CAGTTC

## SEQ ID 450

MVDLWLDQLLVLLLEEFIAFFKEAFQVLSILSVQF

## SEQ ID 451

GTGGAACCTAAACTATTTAAATCATCATTTGGAATGACAAATCATTTTGACAAGTTCCCATCTGTAAAAATGCCAACAAATAGCATCTGGATACTT  
TCGGCAATAATACTAATTTAAATAACTTGGCTTGTGTAAGG

## SEQ ID 452

MEPKLFKIIIGMTIILTSSHPVKMPTNSIWILSAILIKITWLVEG

## SEQ ID 453

ATGTTGATGGTGTGTTATTCCAAAGGCTAGGAATTATTATGATTTTAGCCTTTTTATTGGTAAATAAGTTATTTTAGACAGTTAATTGAAGAG  
CGGTCTAAACGTGAAACGGTAGTCTTTGTCATCATTTTCGGCTTGTGTTATTATATCTAATATAACAGGAATTGAAATAAAGGGGATCGAAGT  
TTGGTCGAGCGCCCTTTTCTAACACGATTTCTCATCTGACTCACCTGCTAATACAGGACTTTAGTTATTACAACGGCAAGTTTGGTTGGTGGA  
CCTCTGGTTGGATCAATTGTTGTTTATTGGAGGAGTTTCATCGCTTTTTTCAAGGAAGCTTTTCAGGTTCTTTCTATATTGTGAGTTTCAGTTCTA  
GTCCGATTGTTAGCGGAAAGATTGGTGATAAGCTTAAGGAAACCATCTCTACCCCTTCAACAGCAAGTTATTTTAATTAGTATTATTGCGGAA  
AGTATCCAGATGCTATTTGTTGGCATTTTTACAGGATGGGAAGTTGTCAAATGATTGTTCATTCATGATGATTTTAAATAGTTTAGGTTCCACA  
CTTTTCCTTGGCATTTTGAAGAACTATTGTTCAATGAAAGTCAGTTACGCGCAGTTCAAACGAGAGATGTTCTGAAATGACTCGACAGACTCTG  
CCCTACCTTAGACAAGGTTTGACACCGCAATCTGCTAGGAGCGTTTGGCAAATATAAAGAGGCATACCTAAGTTGATGCTGTGGGATTAACAGAT

CGGTCAAACGTATTAGTCTCATATTGGTGTGGCCATGATCACCATATTGCAGGACAACCGGTCAAACAGACTTATCTAAAAGTGTATTTTGGAT  
GGCGAACCAAGAAATTGCGCAAGATAAAGCGGCGATTCTTGTCCAGATCACAACGTGTCAGTTAAATTCCTGCTATTTGTAGTCTCCTCTAAAAATAAAT  
GATAAACTGTGGGTGCCCTTAAAAATGTACTTTGCAGGAGATAAGACAATGTCTGAGGTGGAGGAAAACTAGTCCCTTGGTTTACGCGCAATATTT  
TCAGGACAACCTGGCAATGGGGATAACAGAGGAACAAAAAAGTTAGCCAGTATGGCAGAGATAAAGGCTTACAGACCAAAATCAACCTCATTTTC  
TTCTTTAATGCCATTAACACAATTAGTGCAATTAATCCGTATTGATCTGTATAAAGCACGTTATGCACTGATGCAGTTAAGTACTTTTTTTAGAACA  
AGTTTGCAGGGTGGTGCAGGATCGTGAGGTAAACGCTTGAGCAAGAAAAATCACATGTGGATGCTTATATGAATGTTGAAAAATTACGTTTCCCTGAT  
AAATATCAGTTATCTTATGATATTAGTGCAACCAGAAAAATGAAGTTACCACCTTTTGGTTTACAGGTACTGGTAGAGAATGCAGTTCGACATGCT  
TTCAAAAGAAGCTTAAGACGGACAACCATATATTGGTTCAAATAAAGCCAGATGGTGCATTATATTGTGTTTCTGTTAGTACAATGGACAAGGAATC  
TCAGATACTATCATTTGATAAATTAGGTCAAGAAACAGTTGCAGAGAGTAGAGGTACAGGTACTGCTCTAGTTAATCTAATAACAGGCTGAATTTA  
TTATATGGTAGTGAAGTTGCCTTCATTTTTCGAGCGACAAGAAATGGTACAAAAGTTTGGTATCGAATACCTAATAGAATAAGGGAGGATGAGCAT  
GAAAAATTTAATCT

## SEQ ID 454

MLMVLLFQRLGIIMILAFLLVNNYSYFQRLIBERSKRETVVLLVLIIFGLFVIIISNITGIEIKGDRSLVERPFLTTHSHSDSLANTRTLVITITASLVGG  
PLVGSIVGFIFGGVHRFFQGSFSGSYFIVSSVLVGVISGKIGDKLENHLYPSTSQVILISIIAESIQMLFVGIFTGWELVKMIVIPMMILNSLGST  
LFLAILKTYLSNESQLRAVQTRDVLRLTQTLFYLRLQGLTPQSARSVCETIKRHTNFDVGLTDRSNVLAHIGVGHDDHLAGQPVKTDLSKSVIFD  
GEPRIAQDKAAISCPDHNCQLNSAIVVPLKINDKTVGALKMYFAGDKTMSVEENLVLGLAQIFSGQLAMGITEEQNKLASMAEIKALQAQINPHF  
FFNAINTISALIRIDSDKARYALMQLSTFFRTSLQGGQDREVLTLEQEKSHVDAYMNVKLRFPDKYQLSYDISAPEKMKLPPFGLQVLVENAVRHA  
FKERKTDNHLVQIKPDGHYYCVSVSDNGQGISDITIDKLQGETVAESKGTGTALVNLNRLNLLYGSVSLHFSDDKNGTKVWYRIPNRIREDEH  
ENFNS

## SEQ ID 455

TTGACAGACCTTGCCCAACAGTTTAAATGCGCTCTTAGATCAAATTGATAGCTTGATGGTTGCCGTTGCGGATAAGGAAAAGCGATTGGGCAGTAT  
AGGTTTCAAGCCTTGGCTAGTCAGATTAACCCGCAATTTCTCTATAACACCTTGACACTATTATTGGATGGCAGAAATTAATGACAGCAAGCGC  
GTGGTAGAAGTGACCAAGTCTCTAGCTAAGTATTTTCTGTTTGGCCCTTAATCAGGGGAACGAATACATTCGTTTGGCAGATGAAGTGGATCACGTT  
AGCCAATACCTCTTTATTCAAAAAAGCGCTATGGAGACAAGCTAAGTTATGAAGTGCAAGGCTTAGATGCTACGCAGACTTTGTTATCTCTAAG  
CTTATCTTACAGCCCTTAGTAGAAAATGCTATCTACCATGGCATCAAAGAAGTCGATCGCAAGGGCATGATCAAGGTTACGGTATCTGATACAGCT  
CAGCATCTGATGTTGACTGTTTGGGATAAATGGTAAAGGCATTGAAGACTCTTCACTGACCAATAGTCAGAGCTTTGTTGGCTAGGGGAGGTGTGGGC  
CTTAAAAATGTTGACCAGCGGTTAAAACTTCACTATGGTGAAGGCTACCACATGACCATTCTAGCCAGTCAGACCAGTTCACTGAAATACAATTA  
AGCCTTCTAAAAATGCATGAATTAATGGCAGACGACACACAGGAAAACGAG

## SEQ ID 456

LTDLAQQFNALLDQIDSLMVAVADKEKAIGQYRLQALASQINPHFLYNTLDTI IWMAEFNDKSRVVEVTKSLAKYFRLALNQGNERYIRLADELHDV  
SQYLFIQKQRYGDKLSYEVQGLDVYADFVPIPKLILQPLVENAIYHGIKEVDKGMKIVTVSDTAQHMLTVWDNGKGIEDSSLTNSQSLLAGGVG  
LKNVDQRLKLHYGEGYHMTIHSQSDQFTEIQLSLPKMHLMADDTQENE

## SEQ ID 457

ATGAGCATGAAAAATTTAATTTCTGATGATGAAATGTTTGCAGACAAGAATTATCGTTTTTAGTTGAACATAGCCAGGAGGTTGACAACCCCTGAG  
ATTTTTCAGGCTGAGGATATCAGTGAAGCCGAAAAAATCTTATTTAGACAGCAAATGATTAAATTTTTTTAGATATTTCTGCTTAGTGAAGAAAT  
GGCTTTACTTTGGCTAATCAGTTGAGCCAACTTGCACATCCCCCACTTGTGTTTTTGCAGACAGCTTATGATAACTACGCTGTGAAGCTTTTGAA  
AGTAACGCTGTTGATTATATCATGAACCGTTTGAACAACAGCGGTTGATATGGCTCTATCAAAAGTGAAAGAAATAGAGCCAACTCACCCTGCT  
TCAGATGTAGAGCAAGCAATACCTAAAAAGCCAGTGTGTAATGTTAACCTTGACATTATCAGATCGCAGTGTGTTGTTAAATGCAAGATATT  
GTTGCGAGCTAGTGTGAAGATGGCGAATTAACCTGTTAGTACAGTTGCAGAAAACCTTACACTATTTCGGAAGACACTCAATTTGGTTTAAAGTCACGCGT  
GTAGCACCATATTTTCTCCAGATTATCGAAAACAGTGATTAATCTAGAGATGATTGAGGAAATTAACCTTGGTTTAAATCATACTTTGTTACTA  
ATTATGCTAATGAGAGAAATTTCCAGTAGGTCGATCGTATTTAAAGACCTAAATGAGCATTTAACCATG

## SEQ ID 458

MSMKLILDDDEMFAQELSLFVLEHSQEVNDPEIFQAEDISEAEKILFRQOQIDLIIFLDISLSENGFTLANQLSQLAHPLVVFATAYDNYAVKAFE  
SNAVYIMKPFQQRVDMAKSKVKLSQLTTASDVEQAIPKASVELLTLTSDRSVVVKMQDIVAASVEDGELTVSTVQKTYTIRKTLNWFKSR  
VAPYFLQIHRNTVINLEMBEIQWPNHTLLLIMSNGEKFPVGRSYLKDLEHMT

## SEQ ID 459

GTGTACTCATTTGTTAATTTAGTAGAAGACGAATACCTTGTGCGCCAGGGTATTCGTTCTTTGGTTGATTTTTAGCCAGTTCAAGATTGATCGGGTCAAC  
GAAGCAGAAAAATGGCCAGTTGGCTTGGGACTTGTTCAGAAAGAGCCTTATGATATTGTTTTCAGGATATCAATATGCCCAAAATTAATGGGATT  
CAACTAGCAGAACTATTAAACAGGAATCCCCCAAACTCATCTGGTATTTTTGACGGGCTACGATGATTTTAACTATGCCTTATCTGCTTTGAAA  
TTAGGGGCGAGATGATTCTGCTCAAAACCTTTTCCAAAGCAGATTGTAGAAAGACATGTTAGGAAAGCTCCGGAAGAAATAGAACTTTCCAAAGAAA  
ACAGAAACCATTCAGGAATGGTTGAGCAGCCTCAAAAAGAGTATCAGCAATAGCAATGGCTATTTCATGAGCGGTTGGCAGATTCTGATTTGACC  
CTAAAAGCTTGGCTCAGCAGCTTGGTTTAGCCCTAATTAACCTTAGCTAGCTGCAGAAAACCTTACACTATTTCGGAAGACACTCAATTTGGTTTAAAGTCACGCGT  
CAAGAACGGTTGAAAAAGCCAAGCTTCTCTGTTAACAGTAATCTTAAATCTATGAAATTCAGAGCAGGTCGGTTTTGAGGACATGAATTAT  
TTTTCTCAGCGCTTTAAGCAACTGGTAGGCGTTACCCCAAGTCAGTATAAAAAAGGAGGCCAGGCA

## SEQ ID 460

VYSLLIVEDEYLVQRGIRSLVDFSQFKIDRVNEAENGQLAWDLFQKEPYDIVLTDINMPKLNGLQELAEIKQESPTHLVFLTGYYDFNYALSALK  
LGADYLLKPFKADVEDMLGKLRKLELSKKTETIQELVEQPQKEVSAIAMIHERLADSDLTLLKSLAQQLGFSFNYSVLIIKKELGMPFQDYLV  
QERLKKAKLLLLTSLNKIYBIAEQVGFEDMNYFSQRFKQLVGVTPSQYKKGQA

## SEQ ID 461

GTGACACTGAGTTCTCTGATAGCAAGTATTAACTCGTGCAACATATGCTACCACTACCAACATAACAACAGTTGAGATTGTAATAACAGCAACTAGT  
TGCAAGCCTTCAGCTTTTAGGATATCAAGATTGCTGCTACTGATATTCTCGAGGGGACAAACATAAAACCAATAGCTTATCATCAAAGCCCCA  
AAAGAGTCAACCCACTCTACCTTGATAATTTTAGCAGTTAGCAATACATACATTAGCACCAAAACCAATAACCGTCGTTGGGATTGGTAGTATTTT  
GGTAATAACATTGAAATCATTTGTGAACTAATAGAATAGCTGCATATATTGACATT

## SEQ ID 462

MTLSSLIASINRATYATTTNITTVETIVITATSCKPSAFRISRFAATDIPEGTNIKPIMLIIKAPKESTHSTLIILAVSNYISTKPIITVVGIGSDF  
GNNIEIICETNRIAAYIDI

## SEQ ID 463

GTGACTATGAAACACACACAGTAAAGAAACCAAAACAAAAGAGCTCCAATGTTTATTCAAATGTCAATATATGCAGCTATTCTATTAGTTTCACAA  
ATGATTTCAATGTTATTACCGAAATCACTACCAATCCCAACGACGGTTATTGGTTTGGTGCTAATGTATGTATTGCTAAGTCTAAAATATCAAG  
GTAGATGGGTTGACTCTTTTGGGGCTTTGATGATAAGCATGATTGGTTTTATGTTGTCCCTCAGGAATATCAGTAGCAGCGAATCTTGATATC  
CTAAAAGCTGAAGGCTTGCAACTAGTTGCTGTTATTACAATCTCAACTGTTGTTATGTTGGTAGTGGTAGCATATGTTGCAGGATTAATACTTGCT  
ATCAGAGAACTCAGTGTACAGATTATTTTAAAAAGATAATTACCTAACCACTATAGTAAGAAAGTAGAGGAAAAA

## SEQ ID 464

MTMKHTSKETKTKEAPMFIQMSIYAAILLVSQMISMLPKSLPIPTTVIGLVLVYVLLTAKIIKVEWVDSFGALMISMIGFMFVPSGISVAANLDI  
LKAEGQLVAVITISTVVMVLVVVAVVARLILALIRELSVTDLFKKILPNHYSKKVEEK

SEQ ID 465

ATGGAACCTCTTAAAAACACCCATCTTTGGTATTTCCTTTCTTAACTACTCTATACGATAGGAGAACATTTATTTAAGAAGAGTAAAGGTTTCTTCCTTTTGCAGCCTCTTTTCTTGAATGGTTAGTGGTATTGTCATTCTTTGGCTTATGTCTAAAAGGTTTAGGAACCGATGTTAAGACATTTTATACACAAGCTTTATAAACCGAGTGGTGATTTTAAATATTTTGGTTTAAATCCAGCGACAATTGCTCTTTGCAGTTTCTCTCTATAAAGAAAAATGCGTGTGTTAAAAAATATTTGGGTAGAAATTTCCAGCAGTTTAGTACCGTATGATGTTTCCCTTACTACTTCTGTCGCTATTTCTAAATAGGTTGGGCTTAGTCAAGTCGGAATTGCTTCAATGTTGCCACAAGCAGCAACAACAGCAATTGCTCTTCCAATAACAGCAGCAATTGGAGGGAACAACAGCTGTGACAGCAATGGCGTGTGATCTTAAATGCAGTTATTATTATGCAATTAGGTAAAAAATTAGGTGTCATTTTCCATTGGAATGATAGTAAGATTGGTGCAGGATTAGGTCTAGGACCTCTGGTCATACAGTCGGAGCAGCCTTTGCATTGGAATTGGGAGAACTGCAAGGTGCGATGGCAGCTATAGCTGTGGTGGTTATCGTTTGGTAGTTGATTTGGTTATCTTCTTATCTTTTAGTCATTGATTGGTTTGGCTA

SEQ ID 466

MELLKTPIFGICFSLILYLTIGEHLFKKSKGFFLLQLPLFFAMVSGIVILWLMSKGLGTDVKTFYTTQAYKPGGDLIFWFLNPATIAFAVPLYKKNDDVV  
KKYVVEILSSLVIGMIVSLILIVAISKMVGLSQVGIASMLPQAATTAIALPITAAIGGNTAVTAMACILNAVIIYALGKKLVSFFHHLNDSKIGAGL  
GLGTSCHTGVGAFALELGELQGAMAATAVVVIGLVVDLVIPIFSLHIGLL

SEQ ID 467

GTGACTAAATATTTGAAGTACATCTCTTTTGTTGCTTTGTTTCTGGCGAGTATCTTTTAGTAGCTTGTCAAATCAAATTCACAAACCAAGGAGCGAACGCGGAAACACAGCACCAGATGAATTGGTTCTTTCTATGGGGGCAAGGCTTCTTCATGAATTTCGATCCAAAGGACCGTTATGGAATCCATAGCTGAAGTAAATATTACTCATAGACCCCTATTGAAACGTTTCTCTGAACTAGATATAAAGGAGAGCTTGCTAAAAATATAAAATCTCTAAGGATGGCTTAACGTGGTTCGACTTAAATGATGATTTTAAATCTCCAAATGGTGGAGCTGTACTGCTGACGATTTAGTTTATCTTGATATGTTGAAAGCAGATGGAAAAAGCTTGGGATTTGACCTTTATTAAGAAATGTTGAAGTAGTTGGGAAAAACCAGGTAAATATTCATTGACTGAGGCGCATTTCGACATTACAGCAGTTCAGAGAAATCCCAATTCGTCCCTAAAAAACAATTACAATGATAGTATAAGAGCAATCCTATCGTTTCAGACCTTTACATGTGAAAGAAATAAAGGCTGGAGAAACAAGCAATCTTCGTTGAAATCCCTATTGGCAGCGTAAAAAGCCTTTATTTAAAAAGTGGACCTGGGTATTACTTGATGAAAAATACAGCATAGCTGCTTTAGAAATCTGGTGAATTTGACATGATTTACGCAACGCCAGCCTTCTGATCGAAGAAAGTCAAAGGAACA CGTCTTCTAGATATTGCTTCAAACGACGTTTCGCGGACTGTCATTGCCTTATGTGAAGAAAGGTGTTGTGAAAAATTACCCAGACGTTATCCAGTAGGAATGATGTCACTAGTGATCCAGCAATCAGAAAAAGCCTTGACTATTGGTTTAAATAGACAAAAGTCTGGATACTGTTTTAAATGGTTATGGTAAACCCAGCTTTTCAATATTGTATGAGAACCACCTTCGGAATCCAAAAACAGCAATTAAGATATAAAGTAGTCAATAAGCTTAAGCACTTTTGACA AAGCTGGATGGAAAGAAACAAGCAGACGGTAGCGGTAAAAAGGAATCTTAAATCGGAATTGACCTTTACTACCTACTAATGATCAATTAACGAGCAAACCTTAGCCGTTGAAGTAGCGGAGCAAGCTAAAGCCTTAGGTATTACTATTAACCTAAGGCTAGTAACTGGGATGAAATGGCAACTAAGTCA CATGATTACGCCCTTACTTTATGCGGGAGGACGTCATCATGCGCAGCAATTTATGAATCATTACCCAAGTTTAGCTGGTAAAGGTTGACCCTAATTACTTTTATTAACAATCTCTGACTAGTACCTTGACAAAGCAATGACATCTTCGACTCTTGATAAAGCTACAATATTTGGATGGAATCTAGCTCAGTGGGATGGCAAAAGGTGCTTCCACTCTGGAGATTACCAATGTATGGTTGGTAGCTCTTAACCATACTTATATTGGTGGAACGCTATCAATGTAGGTAAACAAGGTGTCCATAGTCATGTCATGATTGGTCATTATTGACTAACATTTGCTGAATGGACTGGGATGAATCTGCTAAG

SEQ ID 468

MTKYLKYISFVALFLASIFLVACQNQNSQTKERTKQRPKDELVVSMAKLPHEFDPKDRYGIHNEGNIHTSTLLKRSPEDLIKGELAKKYKISKD  
GLTWSFDLNDLDFKNSGPEFVADDDKFTFYMLKADGKAWDLITFKINNVVGKNQNIHLTBAHSTFTQAQLETPVPIKKNYNDKYSNPJGSGPYM  
VKEYKAGEAQIFVRNPVHWGKKPYFKKWTWLLDENTALAESGDGVDVMTYAPBELASKVKQTRLLDIASDNVGRGLLSPVYKKGVVNKSJGDPGY  
GNDVTSDDPAIRKALTIGLNRQKVLDTVLNGYGKPAYSIIIDRTFPWNPKTAIKDNKVAKAKQLLTAKAGWKEQADGSRKKGNLKSFEFDLYPPTNDQLR  
ANLAEVAEQAKALGITIKLKSANWDEMATKSHSDALLYAGGRHHAQFYFESHYPSLAGKGWNTITFYNNPTVTKYLDKAMTSPLDLKANKYWKLA  
QWDGKTGASTLGLDLPNVILVSLNHTYIGDKRINVKGQGVSHGHDDWSLLTNIAEWTWDESAK

SEQ ID 469

ATGACTGGATCAACCGGTGATTGTTTGTAGTAAATAAAGGTCAAAATTGATACTCCAAAAACGAGTGACAAACACCTAAGTATCTTCCAGATAACT  
ACAGTGGTAATATGTTTCACAGATAAATCTCTT

SEQ ID 470

MTGSTGDCFSKIKVKIDTPKTS DKHLSIFQITTVVICFTDKSP

SEQ ID 471

ATGGCAAGTGTCAATTATGACACGTCAC TAACCCCTGTT CAGTACAAAGCGATTGCTCACCACATATGGTTTGGATAAGCAGCTCCGGTCCAGTAT  
TTTATTTTGTTTAAAAAATTTTATACAGGGACATTTAGGGACCTTCACTAGTTTATCGGCCAACCCTGTTATTGATATTATTAGATCACGGGCAGGTGCC  
TCTTTTCATCACTTATGGGACTCTCTGGGTCTTATCGGGTCTTATTTGGATTATATCTAGGAACCTTTATCAGCTTTCCATCAAGGGAATTGCTTGTAT  
CGAATTTGAAGGTTGGTTTTCTTACTTCCCTCAGATACAGTACCAACTTTTGGATTGGGCTCATTTTTTAAATCTTTTCTGCTCAGCTGGGGTGG  
TTCCCGATTGGTATTTCTTCCCCGATAGGTACTTTGAGTCAAGATATTACGTTAGCTGATCGTATAAGCAGCCCTTATTCTACGTTTTCACGCTA  
AGTATTTCTAGGCATTGCCAATGTAACTCTTCATACTAGAACTAAAAATGATGTCGGTACTTTCTAGTGAATATGTCTTATTGGCCAGAGCGCGTGGG  
GAAACGGAATGGCAAATTTTAAAAAATCATTGTCTTAGAAATGCTATCGTACCAGCATTTAACACTGCATTTTTTCCCTATTTTGGAGAAATGTTTGGGA  
GGATCCGTTCTTCTGAGCAAGTTTTCTCATATCCAGGACTAGGGTCTACCCCTAAGCAGGACATTTAAAGTGATACACCGCTACTTCTAGCT  
ATTGTGTATGATAGGGACATATTTTGTTTTTCGGGGCAATCTTATTCGGGATATTTTAAACAGCATTAATCAATCCACAGTTAAGGAGAGAAAAGTA

SEQ ID 472

MASVNYDTSLTPVQYKAIHHYGLDKPAPVQYFIWLKNFIQGLGTSLVYRQPVIDIIRSAGASFILMGLSWVLSGLIGFILGTLTSAFHQKLLD  
 RIVRWSYLQISVPTFWIGLIFLLIFSVQLGWFFPIGISSPIGTLSDITLADRIKHLILPVFTLSILGIANVTLHTRTKMMSVLSSEYVLFARAG  
 ETEWQIFKNHCLRNAIVPAITLHFSYFGELFGGSVLAEOVSYPGLGSTLTEAGLKSDTPLLLAIVMIGTLFVFAGNLIADILNSTINPOLRRKV

SEQ ID 473

ATGATATTGAGACGTGAACTATTGTTTATGGCAACTGGGTATCGCCATTCTCTCATTCTTAGTATTCTAGCCTTAAATCTTTATTTCCATAGT  
ACTCCCTTGCAAACAATGCAGCTTTACGGAACCTTGCTCCTTCATTAAACCATCTTTTGGGACAGATGGTTTAGGTAGGGATATGTTTGTGAGA  
ACGATTAAGGACCTTTATTTCTCTACAAGCTGTGCTTATTAGGTGCCCTTATGGGGCTCATTCTGGCGACAGTTTGTGGAGTGCTTGCAGGTTTA  
GGAAATAGCATTTATGATAAAAATAATAGCATGGTGTAGTTGATTTGTTTATTTGGTATGCCTCATTTGATTTTATGATTTCTCATTTCTTTGTGTT  
GGAAAGGTGCTCAAGGGGTCAATCAAGGCTGTTACATGATGGCCCTCTTTAGCAAGGCTATTCCGCAATGAAGTCTATCATCTAAGAAAT  
AAAGAATTTGTCCAACCTTTCTAAAGTATGGGAAAAACGCCCTTATTATATTGTGAGGCATCATATCTGCCTTTGATTGCTTCTCAAATTTTCATT  
GGTTTTATCCTCTTATTTCCACATGTCATCTTACATGAAGCATCAATGACATTTCTTAGAATTTGGGCTCTCTGCCGAACAACCTTCGGTTGGTATC  
ATTCCTGTCAGAGCAGCATGAAGCATCTCTCTTGGAAATGGTGGTTGGTTATCTTTCCAGGACTTTATCTTATTTTGGTTGTCAATGCATTTGAT  
ACTATCGGGAACCTTTAAAGAAATCTTTTACCCTCAAACTGATCATTTT

SEQ ID 474

MILRRRTIVLWQLGIAISLILSILALNLYFHSTPLQTNAAALRNLPASLNHLFGTDGLGRDMFVRTIKGLYFLSQVCLLGALMGVILATVFGVLGL  
GNSIIDKIIAWLVDLFIGMPHLIFMILISFVVGKGAGQVIIATAVTHWPSLARLIRNEVYHLKNKEFVQLSKSMGKTPYYIVRHHILPLIASQIFI  
GFILLFPFVILHEASMTFLGFGLSAOPSVGIILSEAAKHISLGNWWLVIFPGLYLILVNAFTTIGESLKKLFYPOTDHF

SEO ID 475

ATGACAGAAACATTATTAAAGCATTAAAGACCTCTCCATCACCTTCACTCAATACGGAAGATTTTTTAAACCATTTCATCAACACCGATACAAGCG  
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CCTAAAAATGCATCTGTAAACAGGAGATATGATTATCGTGGTCAATCACTAAATTTCTAAACGCATTAAACAGTTGCCAGGAAAGATATTACGTTG



ATTCCACAATCAGTTAAATTATTAGATCCATCTACGAAAGTCAAACATCAGGTCGCGCTTAGGTATCTCAGAAAAATCAAAGGCTACTCAAGAAGGA  
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ATTAGTGAATAGGTTTCTTTGATTATTGGCGGATGAGCCCACTGGATTAACATCAGATGCTCTGCAATAGCTTTAGACAACTACGCTCTCTTT  
GCAGATAAAGGAATAAGCGTTATATTTATCACTCATGATAATTGTAGCAGCTAGTCAAATTGCTGATCGTATTACTATTTTAAAGAGGGAAAAGCT  
ATTGAAACAGCTCCAGCTAGTTTCTTTAGCGGAAATGGAGAGCAGTACAAACAGAAATTTGTAGAAGTTTATGGCGCTCTCTCCCAAGCAAGAA  
TTTGTGAAAGGAGTTACTCATGACCTTAGAGC

SEQ ID 476

MTETLLSIKDLSTITFTQYGRFLKPFQSTPIQALNLEIKKGELLAIGASGSGKSLLAHAIMDILPKNASVTGDMIRYQGSLSNKRKQLRGKDITL  
IPQSVNYLDPSTKVKHQVRLGISSENSKATQEGFLQQFGLKESDGDLYPFQLSGGMLRRVLFTTCISDKVSLIIADEPTPGLHPDALQMVLDQLRSF  
ADKGISVIFITHDIVAASQIADRITIFKEGKAJETAPASFSGNGEQLQTEFARSLWRSLPQQEFLKGVTHDLRG

SEQ ID 477

ATGACAGAAAATTATTAAAGCATTAAGACCTCTCCATCACCTTCACCTCAATACGGAAGATTTTTTAAACCATTTCATCCACACCGATCCAAGCG  
CTGAATTTAGAACTTAAAAAGAGTGAGTTATTAGCTATTATAGGTGCTAGTGGTTTCAGGCAAGAGTTTATTAGCACAATGCTATTATGGATATTCTT  
CCTAAAAATGCAGCTGTAAACAGGAGATATGATTATCGTGGTCAACATCAACTCTAAACAGCATCAAAACAGTTGCGAGGAAAAGAAATGACGTTG  
ATTCCACAATCCGTTAATTATTATTAGATCCATCTATGAAAGTCAAGCATCAGGTGCGCTTGGGTATCTCAGAAAATGCTAAGGCTACTCAGAAGGA  
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ATTAGTGATACGTTTTCTTTGATTATTGCGGATGAGCCACCCCTGGATTACATCCAGATGCTCTGCAAATGTTTTAGATCAACTACGCTCCTTT  
GCAGATAAAGGAATAAGCGTCATATTTTATCACCAGTGATATTGTAGCAGCTAGTCAAATTGCGGATCGTATTACTATTTTAAAGAGGGAAAGCT  
ATTGAACACGCCCCAGCTAGCTTTTATCGCGAGTGGGGAGCAATTACAAACAGAATTTGCGAGACGTTTATGGCGCACACTCCCTCAGCAAGAC  
TTTTTGAAAGGAGTACTACTATGACCTTATAGAGC

SEQ ID 478

MTETLLSIKDLSTITFTQYGRFLKPFQSTPIQALNLEVKKGELLAIGASGSGSKLLAHAIMDILPKNAAVTGMDIYRGQSLTSKRKQLRGKEMTL  
IPQSVNYLDPSMKVKHQVRLGISENAKATQEGFLQQFGLKESDGDLYPQLSGGMLRRVLFTTCISD'TVSLIIADEPTPGLHPDALQMVLQDLQSRF  
ADKGISVIFITHDIVAASQIADRITIFKEGKAJETAPASFSGGGEQLOTQEFARRLWRTLPPQDFLKGVTHTDLRG

SEQ ID 479

ATGACCTTAGAGGCTAAAAGCCTTGCCTTTATCATAAAAAGATCAATGCTTTTAAAGGAGATTAATTTAGAGGTAGCACCTGGTCAAGTTTTAGGTATTTGGGACAAAGTGGTTTGGGAAAAAACTGATTATCCAGGGTGCTTGAGGTTTTCATACCTTAAATCTTGGTGAAGTATTAGTGTATGGCGAATATTTCCCTAGCAAGACCTTAGACCTGTGACCTTATTCACCAACACTCTGAGAAAAACGATGAATCTTTTAGGCCATTGAAAAAAGTTTGAAGAAGCCTATTACCCAAGTCGAGATTTACTAGATGCTTTTGGAAATTCAGAAAAAATGGCTAAATCGTCGACCTAGTGAATCTCGGGAGGAGAA TTACAACGCTTTTCGATTGTGCGCTTCATTACATCCAGAGACTAAATACCTTTATTGCAGATGAAATGACTACTATGTTGGATAGCATTACACAAGCTAGTGATGGAAGAACCTGTGGAGATTCGTAAGGATAGAAATTTAGGTCATCATGTTATTAGTCATGATTTCCGTATGTTTAGAGAACTTTGTAACCAATGCTATATGATTGAAGAAATCGTATCGTATCTTTCAATGGAGAT

SEQ ID 480

MTLEAKKLGFYHKKDQWLFPKEINLEVAPGQVLGIFGQSGCGKTSLSRVLAGFLHPKSGEVLVDGNSLPSKAFRPVQLIQHQHPEKTMNPLWPMKKSLEAYYPSRDLLDAFGIQEKWLNRRPSELGGELQRFISVRSLHPETKYLIADEMTTMLDSITQASVWKSLEIVKDRNLGLIVISHDFAMLEKLCNQCMIENRIVSFNGD

SEQ ID 481

ATGACCTTAGAGGCTAAAAAGCTTGGCTTTTATCATAAAAAAGATCAATGGCTTTTTAAGGAGATTGATTTAGAGGTAGCACCTTGGTCAAATCTTA  
GGGATATTTGGACAAGAGTGGGTGTGGAAAAACGAGTTTATCCAGAGTGCTTGGCTGGTTTTTTTCAGCCTAAATCTTGGTGAAGTATTAGTTGATGGC  
AGCATTTTGGCTACAACAAAGCATTAGACCTGTACAACCTTATCCAACAACATCCTGAAACAAACGAATCTTTATGGCCTATGAAAAAAGTTTGTG  
GAAGAAGCCTACTATCCAAGTCAAGATTGCGAGATGCTTTTTGGCATTCAGAAAAATGGCTAAAGCGTCGTCTAGTGAACCTCTCGGGAGGGGAA  
TTGCAACGCTTTTCGATTGTGCGTTCTATACATCCAGAGAGCAAAATACCTTATTGCAGATGAAATGACTACTATTGTTGGATAGCATTACACAAGCT  
AGTGTATGAAAAAGCCTGTTGGAGATTGTAAGGAATAGAAATTTAGGTCCTCATCATTATTAGTCATGAGTTTGATATGTTAGAAAAAATTTGTGAC  
CGGTGCTATATGATTGAAGAGAACTCGTACTCAACTGTTCAAGCATACC

SEQ ID 482

MTLEAKKLGFYHKDKQWLFEIDLEVAPGQILIGFGQSGCGKTSLSRVLAGFLQPKSGEVLVDGSHLPNKAFRPVQLIQQHPEQTMNPLWPMKKSL  
EEAYYPSQDLRDAFGIQEKWLKRRPSELGGELQRFSTIVRSLHPETKYLIADEMTTMLSITQASVWKSLLIEIVKDRNLGLIIISHEFDMLEKLCD  
ACYMIEENRTOLFKHT

SEQ ID 483

ATGGAACAATTTAAACATGATGCCAAAGCCTTGTAGAGGCAATTGGGGGTAAAGAAAATATTAGTGCAGTGACACATTGTGCTACACGCATGCGA  
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ATTATTGGTAATGATGTCCTCTATTTTATAATGCTTTTGTAGCCGTTCTGGTATTGAGGGTGTGCTTAAAGAGCGCGGCAAAATCGGCTGCCAA  
AAAAATCAAAACCTTTACAGCGTGTGTTGACAACTGCTGGCTGAAATTTACCCGATTATTCCAGCCATTATTGTTGGTGGTCTGATCCTTGGT  
TTTCGTAATATTTAGATGGCCGTTCCATTGAAATTTAGTCAAAAAGTTGTTGTAGTGTGTCAGGCCAAGTAGACTCTTCTGGGCATCCAATTTGG  
AATACTCTAGTAGATGTTTCAACGTTTTGGAGCGGAGTAGACTCTTTTTATGTTTACCAGGTGAAGCTATATTTTCATTCTTACCAGTTGGTATT  
GTATGGTCTGTGACTCGTAAGATGGGGACTACTCAAACTCCTCGGTATGTTCTAGGTATCTGTCTAGTGTGCGCCACAATTACTTAATGCTTATTCT  
GTAGCTAGTACTTACGAGCAGACATGCTCAAAAAATGGTCTTGGAAATTTGGTTCATTCTACAGTACAAAAAATGGTATTCTCAAGCTCAAGTTATT  
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TCCTTAGTTCAGCTATTTATCTTGGCTCATACTGTCTTGGACCTATTGGTTGGACATAGGTAATGGATTCTGCTATCGTTCCTATTGGATTG  
ACTGTCCTGTATAAAATGGCTCTTTGGTGTCTATTTTGGTGCCTGTATGCCCAATTTGTTATTACTGTTTGACACCACATGACAAATGCTATCGAT  
ACTCAACTCATGACGATACAAAAACACATACAACTGGCCCTTTGGCCGATAGTGTCTCTTTCAAATATTGCTCAGGGTTTCAGCTGTACTGACTTTAT  
TATTTTATGTCATCGTCATGATGAAAAAGAGGCTCAAAATCACTTCAGCTGCTATCTCAGCCTACCTTTGGTGTACAGAGCCGCGCTTTTGGT  
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CCTGTCTTTTCAAGGAATTTATGGGGAAGGAGTGTTTATCGATCAAGTGTAGGAGAACTGATTTCAACCGTGCATGCGACAGTTTCTAGTCTT  
TTCCCTACGAAACATGCTATTGGATTGTTAACATCAGAGGGGGTTGAGTTTCTTATTCATATTGGTATGGATACTGTTAATTTAGAAGGAAAAAGGG  
TTTACCTCTCATGTTGCTCAAGGTGACACTGTAAAGTAGAGATAAACTCATTACTTTTGATATTTCCAATGTATAAAGAAAGAGGATACATTGTG  
GAAACTCTTATCTGATTTACTAATCAACAAGAAATCCGACCAGAAGAAATGATAGATTTACCCAAACAGATAAAACGTGGACAAGCATTAAATGGTT  
GCCAAGAAAAATT

SEO ID 484

MEQDKHDAKALLEAIGGKENISAVTHCATRMRFLVNDSSKAKVIEELPSVKGFTTNAGQFQVIIGNDVPIFYNAFVAVSGIEGVSKEAAKSAQ  
KNQNPLQRLVLTMLAEIFFTPIIPAIIVGGLILGFRNLIDAVPFEEFLGQKVVDGVRQVDSSGHPWIWNTLVDVSTFWSGVDSFLWLPGEAIFHFLPVG  
VWSVTRKMGTTQILGIVLGICLVSPQLLNAYSVASTSAAADIKNWSWNFGYFTTVOKIGYAOVPIALLAGLSLSYLETFWRKHPIPEVVSMTFVPPF

SLVPAIILAHITVLGPIGWTLGKWLISAIVLIGLTPGVKWLFGAIFGALYAPFVITGLHMTNAIDTQLIADTKTHTTGLWPMIALSNIAQGSVAFLAY  
YFMRHDEKEAQISLPAAISAYLGVTEPALFGVNVKVIYFVAGMIGSSVAGLLATTFNVQANSIGVGGLPGLFSLINVKVMGYFFICMAVAIFIFPL  
FLTTLFFKKSGLITKTEEEKLVDPDAVIASTTETKSAKEKAVVSGTKLSVVSPLSLGAKPLDQASDPVFSQIMGKGVVIDPSDGLVSPVDATVSVL  
FPTKHAIGLLTSEGVFLIHIGMDTVNLLEGKGFSTSHVAQGDTVKVGDKLITFDIPMIKEBGIYVETPILITNQEFRRPEELIDLKQIKRQALMV  
AKKI

## SEQ ID 485

ATGGGAAAATTTGAACAGGATGCTAAGAGTCTTCTAACTGCTATTTGGTGGTAAAGAAAACATCAAGGTTGTACACACTGTGCAACGCGTATGCGT  
TTTGTGTTGAATGATAATAAAGGCAATGTCAAAGAGATTGAAAAATCTCTGTAGTTAAAGGGACATTTACCAATGCTGGGCAGTTTCAGGTA  
ATCATTTGTTAATGATGTTCCAGTTTTTTATAATGACTTTACAGCTGTTTCTAGTATTGAAGGGTGTCTAAAGAGCTGCCAAATCAGCAGCTAAA  
AGTAATCAAAATGCCCTTACAACGGGTGATGACCATGTTGGCTGAGATTTTCACACCTATTATTCCGGCGATTATTGTTGGGGGGCTTATTTAGGT  
TTCCGTAATATTTGGAGAGTGTGCTTTTGAATTTCTTGGGCAGCAGGTGCAAAAAGGGAAATAGTTTGTATGCAGCTGGGGATCCTGTTTGG  
AATACGATTGTGAGGGTATCTCCTTTCTGGTCAAGGGTTAACCATTTCTTGTGTTTACCAGGGGAAGCTATTTTCCACTTCTTACCAGTTGGGAT  
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CCAGCCCTTTAGCTGGTGTGCTCCTTGTCTTATCTGAATTTTCTGCGCTAAACCGATTCCAGAAGTGGTTTCAATGATTTTTGTGCCATTCCTT  
TCTTTGATTCCAGCTTTGATTTTAGCGCATACGGTATTGGGGCCAATCGGTTGGACTATTGGTAAAGGGATTTCTTTGTTGTGTTAGCTGGATTG  
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TATTTAATGAATCGTCATGAAGAACGTGAGGCTGAAATATCGCTTCTGTCAGCAATTTCTGCTTACCTTGGGGTAACTGAGCCTGCCCTTATTGGG  
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TTTGACACAGGAGTTATGGGCCAAGGTGCTCTTCTTCAACCGACAGAAGGGGTGTAGTAGCGCTTGTGATGCTGAAGTATCGGTCTTGTGTTCCCA  
ACTAAACACGCTATTGTTTGGTGACGACTGAAGGTTTGAATTTATTGATGCATATTGGCATGGATACGGTTAACTTAGATGGTCAAGGATTGGA  
GCTTTTGGTGAAGCAAGGTATCAGGTTAAGGCTGGACAAACATTGATTTCAATTTGATATAGCAGCAATTTCTGAGGCTGGATACGCCATTGAACG  
CCTCTTGTGGTGACTAATCAAGATGTTTTTACGGTAACGTTTGAAGGTAGTTTACCGCGTCAGATTAAGGTTAATGATAAGTTAGCAGTAGCGGTG  
AAAAAG

## SEQ ID 486

MGKFEQDAKSLLTAGGKENIKVVTHCATMRMFLVNDNNKANVKEIEKISVVKGTFTNAGQFQVIIGNDVPVFNDFTAUVSSIEGVSKAAKSAK  
SNQNALQVRMTMLAEIFTPPIPAIIVGGLILGFRNILESVPFEFLGQVQVEKGLVFDAGDPVWNTIVRVSPFWSGVNHLFWLPGEAIFHFLPVGI  
TWSVTRKMGTTQLLIGIVLGLCLVSPQLLNAYAVAGTPAABIAKXNVWDFGFTTNRIGYQAQVIPALLAGLSLAYLEIFWRKRIPEVVSIMIFVPL  
SLIPALILAHITVLGPIGWITIGKISFVVLVAGLTGPVKWLFGAIFGALYAPLIVITGLHMTNAIDTQLIADTATRTTGLWPMIALSNIAQGSVAFLAY  
YLMNRHEEBEAEISLPAAISAYLGVTEPALFGVNVKVIYFVAGMIGSSVAGLLATTFNVQANSIGVGGLPGLFSLINVKVMGYFFICMAVAIVFPM  
FLTFFFRKSHIMTKTEDEAKLPETPVSDAPVATAPHKTMQGTVITLTSPLTGEVKALSEAVDPVFAQGVMMQGGALLQPTBGLVAPCDAEVSVLFP  
TKHAICLVTEGLELLMHIGMDTVNLDDGQGFALVKQDQVKAQGTLIQFDIAAISEAGYATETPLVVTNQDVFTVTVESGLPRQIKVNDKLAVAV  
KK

## SEQ ID 487

ATGACGATTGATAAAGCTAAAGTTGTCTATCAAATTTATCCAAATCATACAAAGACACAACCTGGTAATGGGGTGGTGTATCTTCTGTTGATTATC  
GAAAAATTACCTATTTAGCAGAACTTGGTATTGATATGGTTTGGCTCAACCCATTTTATCCAGTCCACAACGAGATAATGGATATGATATCTCT  
GATTATACAGCTATTAACCTGATTTTGAACGATGGACGATTTTGAAGAAATGATTGAGGTGGGACGTCATACCGTATAGATTTTATGCTTGAT  
ATGGTGCTTAATCATTGTTCAATAGAACATGAGTGGTTTAAAAAGCACTGTGAGGAGATCGCTACTATCAAGATTTCTTTATCTTACCTGATGAT  
CCAACGATTTGGGTATCAAATTTGGTGGAAATGCTTGGCGCACTTTGGTGATACAGGGAAGTATTATCTTCACTTTTATGATACCTGACGCT  
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AAGATGTTGAATAATGCTAGTTTGGACAAGATGATTCCTTATGACAGTGTGGTGAATGTCTTCAACGCAATTTGCAATTTGCAATTTTACCT  
GCACAGAACTGGAAGCTATCCATGGCTTTTAAATTTTCAACCTTCAAGATGATTATTAAGATGGGCAAAAGTGGACCATTTAGCTTGGCTTTGAT  
TTTCTGCAATACGTTGACCTTTTCCATAGTTGGGGCGAAGGGATGAGCGAAGGAAATGGTTGGAATGCTTTATTTCTATAATAATCATGACCAACCG  
CGAGCATTAAATCGTTTTGTAGACGTGAACGTTTTTCAAAATGAAGGAGCAACCATGTTAGCAGCATCTATCCACTTATCGCGTGGTACTCCTTAT  
ATATATATGGGTGAAGAAATCGGAATGCTTGATCCCGATTACAGTTCTATGATGATGATTATGTTGATTTGAGAGTTTGAATGCTTACCAATAATG  
CTTGATGAGCAAGTGAAGCAAGAGGAGCATTTAGCATATTATTCGAGCGAAATCTCGAGCAATTTCTCGAGTACCAATGCAATGGGATGATGATGACG  
AATGCAGGTTTTTCTGAAGGCGCTCCATGGTTGAAAGTAGGAAATCATATAAAGAAATCAATGTCGCAAGGAGAGAAACAGGGCTGATATTTACT  
TTCATCAAGAGTTGATAAGGCTACGTAAACAACCTGCCAATAATAGCTGACGGGAATTATAAAGCAGCTTCAAAGATAATGAAAAGATATATGCT  
TTTGAACGCCATCTTGATAAGGAAAACTTCTGTTTTAAATAATTTCTTTGCTGAGAAAGTTAAGATAAAATACCGGAGAATTATCTCAAGGA  
CAAGTTCTTCTATCAAATTATAAGGATGTTACTCTTGATGAACCGGTTACTTTGCAACCTTATCAAACCTTAGCTATCTTAGTGTC

## SEQ ID 488

MTIDRRVYQIYPSKYDITGNGVGLDRGIEKLPYLAELGIDMVNLNPFYPSQORDNGYDISDYTAINPDPFGTMDDFEEMIEVGRQYRIDFMLD  
MVLNHCSIHEHWFKKALAGDRYQDFFILRDNPDTWVSKEFGGNAWAFPGDTGKYYLHFDITQADLNWRNADVRKELFKVNVFWRDKGVKGRFV  
INLIGKDEILENCPIINDGKPAYTDRPIHTHYLKLMLNNASFGQDDSFMTVGBMSSTTIANCILYTAPERBELSMFNFHHLKVDYKDGKCTIMAFD  
FPALRDLFHSWEGMSSEGNWNLFYNNHDQPRALNRFVDFRNEGATMLAASIHLSRGTPYIYMGERIGMLDPFSSMDYVDIESLNAYQIM  
LDEGKSQEEAFSIIIRAKSRDNRVPMQWDDSTNAGFSEGAPWLKVGSKYKINVAKEKTGLIFTFYQELIRLRKQLPIIADGNKYAAFKDNEKVYA  
FERHLDKEKLLVLNFFAELVKIKLPENYLQGGVLLSNYKDVTLDETFTLQPYQTLAILVS

## SEQ ID 489

ATGACAAATTGATAAAAAGAAAGTCGTCTATCAAATTTACCCAAAATCCTATAAGGACACGACTGGAAATGGTGTGGGAGACTTGCTAGGGATCATT  
GATAAATTGCCTTACTTACAAGAACTAGGAATAGATATGATTGGTTGAACCCCTTTCTACCCCTAGTCCACAACGAGACAAATGGCTATGATGTTTCA  
GATTATACGGCGGTCAACCTGATTTTGAACCAATGGCTGATTTTGAATAATTTGGTAAAGAGCTGCTAAGGAGCATCAGATTGAGTTAATGTTGGAC  
ATGGTTTGAATCACTGTTTCCACAGACCAGAGTGGTTCCAAAAGCTTTAGCAGGAGACCCCTTATTATCAGGATTTCTTTATCTTGGAGAGATCAG  
CCGAGTATTGGGTTTCCAAATTTGGTGGGAATGCTTGGCGCCCTTTGGAGATACAGGCAAAATACACTACTTACACTTGTGTTGATGTCACAGGCT  
GACTTGAATTGGCGGAACCCACATGTTCTGTGAGGAATTGGCTAAAGTGGTTAATTTTGGCGAGATAAAGGAGTGAAGGGGTTCCGTTTGTATGTG  
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CATGATCTCAATCAAGCCAGTTTGGTCAAGGATGATTCGTTTATGACAGTAGGGGAAATGTCTGCAACGACTATTGCAACTGCTTTTATACACG  
GCTCCCGAAGCTGAGGAGCTATCCATGGCTTTTAAATTTTCAACCATCAAAAGTATTGATGAGAAGCGGTGAGAAATGGATGATTTGGCTTTGAT  
TTTGCAGCGCTGCGAGACTTATCCATGCTTGGGGTGAAGGCATGAGTCAGGGCAATGGGTGGAATGCTTTGTTCTACAATAACCATGATCAACCA  
CGTGCCCTGAATCGTTTGTGATGAACATTTCCGAAACGAAGGTGCGACGATGTTAGCAGCTTCCATCCATTGTGTCAGGAGAACGCCCTTAC  
ATTTATATGGGTGAGGAGATTGGCATGCTTGATCCAGACTTTGATAGTATGGATGATTATGTGGATGTGGAAAGTCTCAATGCTTACTCAAGCTTA  
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CATGCTGGCTTTACGACTGGTAAGCCTTGGTTAGAGGTTGGCAAACTCTTATCGAGACATCAATGTCGAAACAGAAAAAGAGGGACGTATTTTCTCT  
TTCTACCAACGCTTGATTGCTTTGCGGAAGGAACCTCCCTATTATTGCTGAAGGGGACTATCGGGCTGCTTTTAAAGATAGTCAGGCTGTCTATGCC  
TTTGAACGCCATTAGGTGACCACTGTTTCTGCTTCTCAATCAATTTCTATGCTGATGAGGTCGAACCTGGAATTACCTCCACGTATCAACATGGA  
CAGGTCTTAATCAGCAACTATGAGAAAGTTTCTATTGTGAAAAAGTGATACTGAAACCTTATCAGACACTTGCATCTTAGCTGATAAC

SEQ ID 490

MTIDKKKVYQIYPKSYKDTTGNVGVDLLGIIDKLPYLQELGIDMIWLNPFYPSQORDNGYDVSDYTVNPDFGTMADFENLVKAAKEHQIELMLD  
MVLNHCSTDEHWFQKALAGDPYQDFFILRDQPTDWVSKFPGNNAWAPFGDTGKYLYHLFDVDTQADLNWRNPHVREELAKVNVNFRWDKGVKGRFDV  
INLIGKDEBLVDCPVNDGKPAYTDRPITHYTLHDLNQASFGQDDSFMTVGEMSAITIDNCLLYTAPERELSMANFNHLLKVDYENGQKWTIMAFD  
FAALRDLFHAWGEGMSQGNWNLFFYNHDPRLNRFVDVTHFRNEGATMLAASIHLSRGTPYIYMGEIIGMLDPDFDSMDYVDVESLNAYSSL  
LVSGKSAEEAFATIKAKSRDNARTPMQWDASEHAGFTTGKPLWLVGKSYRDINVETEKEGRIFPFYQRLIALRKELPIAEGDYRAAFKDSQAVYA  
FERHLGDQCLLVNLHFYADEVBELPPRYQHGVLSYBKVSIKCVILKPYQTLAILADN

SEQ ID 491

GTGCTGCTTGTGAAAGGAATCTTGCTCTAGATTTTGCAATTTCTTTCTTTTCTTTTCTTTACTCTATAACAATAGCCCAAATTCATTCAATTGATAGT  
AGTGCCAGATTGGGCTCAAATGACCTAGAAAAATGTAACCGGTACTA

SEQ ID 492

MLIVERNLALDFAISFFFLYSITIAQIHSIDSSARLGSNDLEKCKRLL

SEQ ID 493

ATGGTTGATAATAAGACTGTTGTGATAATGTTGGTATTTTTCAGCTCGGAAAAATCTTTCCTTGTATGAGTTAACAGTGCAAAACAAAGTTTTCATA  
AAAGTTATCATAGAGCAAAATTAATCTCAATAGTTTTTTCAGCAAAAAATCACCTACCAGCTATTGCTCACTGCTGGACGTATCAGTTATTA  
GGAGATGAAAAAGAGCATGATAAAATTGCTCCTTATTAGAAGCTGAGCAATTTTACCTAACCCAGGAAGAAAGGGTATGTCTGATTTACCTTTAT  
AGCTTTTGCGGAAGAGAGTTTGTCTCCAATGTGCATTATCAAGATTTTTTGAAGTAAGTAAGAATACTACTTTATCAGATATCAAGATGCTACGT  
TCTAAATTAGCAAAAAGAGGTATCTCACTCACTTATACAAGAGCAAGGATATAGTCTAGTAGGAGATGAGATGAGTAAGCATCAAGTTGCTTTT  
CAGATGATAACTCAACTACCTAGTAATCTCCCATTTGGTCTTTTGAATTAATCTTGTCTTCTTGGAAATCTGCTCTCTCATAGAGAGTTA  
GAAAAAGCGGTAGAAATATTTCTATGAATCTTTTCACTTTCTCCAATACAAGATAGGCTTGAGAAATCTTTATATTTTATCATTTTAAATCATGTGT  
CGTTATCAAGAGTCAGTAGATCGTGTCTTGCAGGGTCTCTCTATTTGTTCTGAACAATTAAGAGATTACGACTATTATTTGACTAATTTAAGT  
CAGGATATTTCTTATCTAAACCATTAGATCAGAAAGAAAAAGATTATATACCTTGATCTTATCTGGCTGTTTTGAAGGTGAGGGAACTAAAGAT  
GATGATTTCTTTGAGGATTGGCAAAAGCAATCGTTGATGAGATGGAAGCTGTTCACTTCTTAATTTTCCAATAAAGAGAGTTATTACAAGGT  
CTGAAGCGTCATATTATTTCCAGCTTATTTCCGATTGAAATATGGTTTAACTGGCGATAGTGGTTATACACAAAAATTTAAAGACAGCATTACAGTGAT  
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GGCTATCTTAGACAATCAGGTGGTACACAATCAATGTCTTATAAAGCTTTGATACTCTGTCCAAACCGCGTGTAGTTTATCTTCTAGTGATTAAAGAA  
AAATGCGTGGATTATTTCTCTCAAAATCTTTTCTCATCTGTCTCTTAAATTTGAGCAGCTGAAACTGATTGACAATCAAACTTACGATATGGTCTTT  
TCTACTATATTTGTAGAAACAAAAAACCTAATATTCTAGTTTCTCTGATGATGACAGCAGAGCAAGTACAAACAGCTCAAGAACTGGTTATTTC  
GATTTTCCAAGGCTTGCTTTGACGATTTCCAACCTTGATCAATTAATAGCAACTATAAAAAATACGCTCATGTTTCTTGTGAAGAGGAATTA  
TTGGCTTTGAGGCAATGGTAAACCAAGATATACTTAGAAAGGATGTGAGGCCCTTGTGTCACCAACTTATAACAGAGGAACTTATCAGACAAGT  
TCTGAACAAATGATTGGAAGAGGCAATTCGTTTACCGCAAAACCTTGTGATGCTTTGAGGAAATTAACGGAAGTTACCCAGAAGCTATGATT  
GAAAAAGTGAAGAGTTTGGTCTTTTATCAATCTTGGTAAAGGTATTGCTATTTCCACATGCCAGACAGAGATGGGTAAACTCTGTGCGGTATG  
TCAATGCTTGTTTTGAACAGCCACGCGGTACGCATGAAACTTTCTCTTCTATCTTTTGTGCCCGGACATCAATTTTGAAGATTCCTTTT

SEQ ID 494

MVDNKTVMIMLVFLARKNLSLYELTVQTKFSIKVIEQINYLNSFLAKNHLPAIAHSAGRYQLLGDKEHDKIVSLLEAEQFYLTQEEERVCLILYL  
SFCRRFVSNVHYQDFLKVSKNTLSDIKMLRSKLAKRGISLTYYTRAKYSLVGDMDKHQVAFQMITQLLESPIGFWSLNYILSSWKFAISYEKL  
EKTVEYFYFESFQLSPIQDRLEKSLYFIILILCRYQSRVDRVLQSGPIVSEQLKELTTIIVTNLSQDISLSKPLDQKEKDYITLILSGCFEGEGTKD  
DDFFALAKAIVDMETVSLNFSNKBEELLQGLKRHIIPAYFRLYKGLTGDSTGTONIKHYSLFLVKKALRPLEEQVGLIPDSEISYFVHIFG  
GYLRQSGGTQSMSYKALILCPNGVSSSLVIKEKLRGLFPQIHFRVSKIEQLKLIDNQYDMVFSTIFVETKPKNYLVSLMMAEQVQQLKELVIS  
DFPKACLDFFQLDQLIATIKYAHVHCEBELKLALRTMVKQDILRKDVRELLHQLITEYQTSSEQMNWKEAIRLAAKPLLASGKITESYPEAMI  
EKVEEFGPFINLKGIAIPHARPEGDVNSVGMMLVLEQPRRTHENFLFILLCPDINFEKIPF

SEQ ID 495

TTGAGTCCAATTGCAGTCAAAAAATGACATGAGACAATTGGACTCAATTTATCTTGAAGTGAAGAACGCTTCATTTTATCTGACATTATAGGAGGA  
GATGACATGCTATCTCATGAGCTCATCAGAACTATCAACTCTTTCTAAATATAAGGACATTCACTGGAGGCATTGAATCCATTTTAAAGGCA  
AGCAAAACGTCATATACTGCGAGATATTGCTAAATCAATGACAGCTGTGCTACTCTTACGTTACCCCTTATTGCTGCGAGCAGCTGGTTTAT  
CCGCCAGACCTTACTGAAAGGACTTGTGAATCGCATGCTACCTACCTTAGACGACTATCTCTTCAAGATGAGCGTCTGGATATGATTATCATT  
TACATCATGATGGCTAAAGAAATTTATCTCCATTAACCACTTGAAGAGCTTGTGACGGCTCAGCAGAAATCTGTTATTGCTGATTAACTTGGTG  
CGTATCGGGTACAGCTTTTCAGGTAACCTTAGCTTACAATCGCCAGGATGTTTATTTTGAAGGAGAACCCTTAGCTTTCGGCGCTCTCTTA  
GAATCAGCGGTGAGTTCTCTTTTGAAGTACATCTGGACCTTGGGTGTTGAGTACTTATGTCATGAATCTGGTTTGGCCGACAGAAAGGTG  
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CATCGACCAATTTTACGGAAACGTAAGGGCTGAAGCAGTGGATACCTTTCTTTAGCTTTCGCCAGCTGTTGAAACGATGGTGGACCACTTATTGGT  
AATTTCCCCAGCTTAACGAAGAAAAATATTGGTTCAATCTAGGTACTTGTGTTGATATCCAAGGTGACTTAGAGTTAGTCTTTTACGCAACCTATT  
TATGACATTATGGAGGAATCATCAATTCGGTGGCGGTTTAAACCGGGATTTGCTTATCCCGATACCCGAGAACTTCGTCAGAACCTATACAGTCAC  
CTTTTGCCAGCTTATTACCGACTTTACTACGACATTAACCTTGACCAATCTTTTGAAGGAACAAATCAACCAAGATTATGAATCTCTCTTTTACTTG  
GTCAGCGCAGCCTTTCTCTCTAGAAAAACAATTTGGGGAAATCAGTTAATGAAGATGAGGTTGCTTATTTTACCATTCATTTTGGGAGATGGTTG  
CAGGCCCTTAAGAAAGAGGCCAAGCAATCAGCTGGTAGCCTTATCTGTTTGGCCCTTAATGGCATTAGTTTCTGCTCTGATGTTGGAGGCAACCTTGAAG  
GACCTTTTCCACAGCTTACAGTTTATTAGGATTCACCACTTGGACCTTGAACAAATAAAGTTTGGATCCAGCATCCTTTGATTGATTGATTCTTCAACGTA  
GCTTTTGAAGTGTCTAAACCTGTTTATGTGACGCAAGCTTTGATGGGACCTGTTGAAAAATGATGTTGAAAAAGATGGTCTGTGATGACTTTTCAT  
CTTCCCTTGTGAGAGCAATTCGCTTTGGATGATCTGTTGAGTATTATTATCAATAACATACACGATTACTAATAAGAAAGGACTTGTAGTGATTATA  
TCCCGTTTACCTGATTGGTAACCAATTAACGATTGAAAAAGGAGGCTTAGGACTATTGAGCTTGTTAACAGCAGATTATTATTAGGACAGGCTGATGCT  
GTTTTCGAGTTGGCAGGAAGCAGATTGCTTTGGCTGCTCAGGCTTTACTAGAACACCATGATGATTGAAACATCTTATGAGGATGATTGATTGCT  
GTCAATGAGCTTGGGGCTATATTTGTTTGGCCCTAAGGTGGCTGTTCTCATGCGCGGCTGAAAAAGGAACGCGGACGTTAGGCATGTCTCTC  
TTACAACATAAAGAACCTGTCAGCTTTGATTGAGCAAGAGGTGATCCAGACAAGCAAGTGAATTTGTTTTGTTGCTGCTGTGGATTCT  
AGTTTACATTTGAAGGCTTTGACAGAACTGTCGTTGATTTTAGATGATGATGAACATATTGAGCAATTAATTGAGGCTAAGAATACTGAGGAAATA  
ATGAGTCTGATTAGCCATATGATTGAAAAAGGAGACGAATCACATGAT

SEQ ID 496

LSPIAVKNDMRQLDSIYLENENASFYTDIIGDDMLSHELIRNYQLFSKYKHSLEAFESILKASKRHILADIKINDTSLYQLPLIALDRQLVY  
PPDLTEKDLLNRMPLTDDYLFQDERLDMIIYIMMAKRFISINHLESRLRLSRNSVIADNLNVRDRVQAFQVTLAYNRQDGYFEGEPLALRLL  
ESAVSSLQLQVTSPPVFSYLLHGLPDKQVMAATLEELSRNHLTFISEKRLDIYFFCLLAHRPFSRNVRAEAVDTFPLASPAVETMVDQLLV  
NFPSSLTEEKYLVQSRLLGCIQEDLELVFQQPIYDIMEETINSVAVNTGLSITDPELRQNLVSHLLPAYRRLYDINLTNPLKQYIKQDYSELYL  
VKRSLSPLEKQLGKSVNEDEVAYFTIHFGRWLQAPKKRPSNQLVALSVCPNGISSSLMLEATLKLFLPQLQFIRIHLQDKIKLLDPASFDLIFSTV  
AFDCAKPVVVTQALMGPEVKMMLKMKVCDFFHLPLISEQFALDDBLSIIHKHTTTTNEKGLVSDLSRYLIGNHLLTIEKGLGLDLLLTADFIHQADA



VSDWQEAIRLAAQPLLEHQMIETSYIDGMIDSVNELGAYIVLAPKVAVPHAAPEKGTQRLGMSLLQLKEPVFSDLKQEGDPDKQVQLIFVLSAVDS  
SSHLKALQELSLILDDDEHIEQLIEAKNTEIIMSLISHMIEKGDESHD

SEQ ID 497

TTGGAGAAAGAGGCTAAGCAGATCATTGATTTAAAAAGGAATCTTTTCAAATTGATGTCCGGGCACAAAAGGATGAAGAGAAAGTTTTTCATGCGT  
ACGGCGTGGCTGTTCCAAAACAAGCAT

SEQ ID 498

MEKEAKQIIDLKRNLFKIDVRAQKDEEKVFMRTAWLFQNKH

SEQ ID 499

TTGGAGAAAGAGGCTAAGCAGATGATTGATTTAAAAAGGAATCTTTTCAAATTGATGTCCGGGCACAAAAGGATGAAGAGAAAGTTTTTCATGCGT  
ACGGCGTGG

SEQ ID 500

LEKEAQMIDLKRNLFKIDVRAQKDEEKVFMRTAW

SEQ ID 501

GTGACTACGATGATTGATTTTATTATTTCTATTGATGATTGCGCAGTTGAATTGGATAGTCTGTCATCTTGGAAAATTGCTACCCCTTATCAACC  
ATTCATTATTTCTTGTCTTTTGTTCAGTTAGCTGGCATTGAAACCTGGAAGGAGATGGAAGATTTTATTGAAATGAATGAACCATTTGTTGCGACC  
TACGTTGATTTGAGTGAAGGTTGTCGCTCATGATACCTTAGAGCGTGTGATTAGTCTTGTTAATTCAGACCGTTTAAAGAGCTTAAAGTTCAA  
TTTGAGCAATCATTGACAAGCTTAGATGCGGTTTCACTCACTGATTTTCACTGGACGGTAAACGATTGAGGCAATCGAGGTAAAGTAAAGCCT  
GTTTATATTGTAACGGCTTATGATGGGGGTCATCATCTTAGTTTGGGACAGGTAGCGGTTGAGGAGAAAAGTAAATGAAATTTGTTGCCATTCTCAG  
TTATTGCGGCAATTGATATCCGTAAAGCATTGTAACGATAGACGCAATGGGCACGACGCGCTATCGTTGATACGATTATAAAAGGTAAAGCA  
GACTATTGCTTAGCCGTCAAAGGAAATCAAGAAACACTTTATGATGATATTGCTCTTTATTTTAGTGATGTCAACTTATTGGAAGAACTCCAAGAA  
AATGCGCAGTATTATCAGACTGTTGAAAAATCTAGGGGACAGATTGAAGTTAGAGAATACTGGGTGTCTTCCGATATCAAATGGTTGTGTCAAAC  
CATCCAAATGGCATAAGTTACGTGGTATTGGGATGACTCGTAACACGATTGATAAGGATGGTCAGCTGAGTCAAGAGAATCGTTATTTTATCTTT  
AGCTTTAAGCCGATGTCCTCACATTTGCCAATTGTGTACGAGGTCAATTGGCAGATAGAGAGTATGCACTGGTTATTGGACGTTGTTTATCATGAA  
GATCATCATCAGACATTGGATAAAAGAGCCGATTAACTTAATCTTATCCGAAAAATGTGCTTATATTTTCTCAAAGTATGATGGTATTTCTTAA  
AAAGACCTCAGTTATCGTCGCAACAACGGTATATTTCTGTCCATTGGAAGATTATTTAGTCCAATTATTTGGAGAAAGAGGC

SEQ ID 502

MTTMIDFIIISIDDCAVELDSRQSWKIRYPLSTILFLVFCQLAGIETWKEMEDFIEMNEPLFATYVDLSEGCPSHDTLRLVISLVNSDRKLKELKVQ  
FEQSLTSLDAVHQLISVDGKTIRGNRGKNQKPVHIVTAYDGGHLSLGQVAVEEKSNEIVAIPQLLRTIDIRKSIVTIDAMGTQTAIVDTIIKGA  
DYCLAVKGNQETLYDDIALYFSDVNLLELQENAYYYQTVKEKSRGQIEVREYVWSSDIKWLCQNHKPKHKLRLGIMTRNTIDKDGQLSQENRYFIF  
SFKPDVLTAFANCVRGHQWQIESMHWLLDVVYHEDHRQTLDKRAAFNLNLIRKMCCLYFLKVMVFPKDLRYRRKQRYISVHLEDYLVQLFGERG

SEQ ID 503

GTGACTACGATGATTGATTTTATTATTTCTATTGATGATTGCGCAGTTGAATTGGATAGTCTGTCATCTTGGAAAATTGCTACCCCTTATCAACC  
ATTCATTATTTCTTGTCTTCTGTTTGTTCAGTTAGCTGGCATTGAAACCTGGAAGGAGATGGAAGATTTTATTGAAATGAATGAACCATTTGTTGCGACC  
TACGTTGATTTGAGTGAAGGTTGTCGCTCATGATACCTTAGAGCGTGTGATTAGTCTTGTTAATTCAGACCGTTTAAAGAGCTTAAAGTTCAA  
TTTGAGCAATCATTGACAAGCTTAGATGCGGTTTCACTCACTGATTTTCACTGGACGGTAAACGATTGAGGCAATCGAGGTAAAGTAAAGCCT  
GTTTATATTGTAACGGCTTATGATGGGGGTCATCATCTTAGTTTGGGACAGGTAGCGGTTGAGGAGAAAAGTAAATGAAATTTGTTGCCATTCTCAG  
TTATTGCGGCAATTGATATCCGTAAAGCATTGTAACGATAGACGCAATGGGCACGACGCGCTATCGTTGATACGATTATAAAAGGTAAAGCA  
GACTATTGCTTAGCCGTCAAAGGAAATCAAGAAACACTTTATGATGATATTGCTCTTTATTTTAGTGATGTCAACTTATTGGAAGAACTCCAAGAA  
AATGCGCAGTATTATCAGACTGTTGAAAAATCTAGGGGACAGATTGAAGTTAGAGAATACTGGGTGTCTTCCGATATCAAATGGTTGTGTCAAAC  
CATCCAAATGGCATAAGTTACGTGGTATTGGGATGACTCGTAACACGATTGATAAGGATGGTCAGCTGAGTCAAGAGAATCGTTATTTTATCTTT  
AGCTTTAAGCCGATGTCCTCACATTTGCCAATTGTGTACGAGGTCAATTGGCAGATAGAGAGTATGCACTGGTTATTGGACGTTGTTTATCATGAA  
GATCATCATCAGACATTGGATAAAAGAGCCGATTAACTTAATCTTATCCGAAAAATGTGCTTATATTTTCTCAAAGTATGATGGTATTTCTTAA  
AAAGACCTCAGTTATCGTCGCAACAACGGTATATTTCTGTCCATTGGAAGATTATTTAGTCCAATTATTTGGAGAAAGAGGC

SEQ ID 504

VTTMIDFIIISIDDCAVELDSRQSWKIRYPLSTILFLVFCQLAGIETWKEMEDFIEMNEPLFATYVDLSEGCPSHDTLRLVISLVNSDRKLKELKVQ  
FEQSLTSLDAVHQLISVDGKTIRGNRGKNQKPVHIVTAYDGGHLSLGQVAVEEKSNEIVAIPQLLRTIDIRKSIVTIDAMGTQTAIVDTIIKGA  
DYCLAVKGNQETLYDDIALYFSDVNLLELQENAYYYQTVKEKSRGQIEVREYVWSSDIKWLCQNHKPKHKLRLGIMTRNTIDKDGQLSQENRYFIF  
SFKPDVLTAFANCVRGHQWQIESMHWLLDVVYHEDHRQTLDKRAAFNLNLIRKMCCLYFLKVMVFPKDLRYRRKQRYISVHLEDYLVQLFGERG

SEQ ID 505

GTGGAACAGCCCTATTTATTTATTGGATGACCCCAAACAGGAAATTTATCTCTTATTATGCATAGCAGCTATTGATAATGAAACGCATTGAAAGCT  
CTATCGCATTTGACAACAATACTTCGTGATAATAATAATGTTAAAGCTTTGTTAGCTTCACGTAGGTATCAAGATATTGAAATGATTATAAACAG  
GAGGAT

SEQ ID 506

MEQPIYLLDDPKQBIYLLLCIAAIDNETHLKALSHLTTLIRDNVNVKALLASRRYQDIEMI IKQED

SEQ ID 507

ATGTTAAGAAATTGGAACAGCATGTGGATCAGGTTTAGGTTCAAGTTTTATGGTACAAATGAATATTGAGTCTATTTTGAAGGATTTGGGGGTTTCT  
GATGTTGAAGTTGAACATTTATGATTTAGGTGGAGCAGATCCAAGTGCAGCAGATGTTTGGATTGTTGGTCTGATTTGGAGGATTCAGCTGGTCA  
CTGGGGGATGTTCTGATTTTAAACAGTATCATTGATATGGATGAATTGAGAGAATTAGTGACAGGTATTTGCCAAGAAAAAGGCTTAATC

SEQ ID 508

MLRIGTACGSLGSSFMVQMNIIESILKDLGVSDVEVEHYDLGGADPSAADVWIVGRDLEDSSAGHLGDVRILNSIIDMDELRELVTGICQEKGLI

SEQ ID 509

TTGAAAAAGGAGACGAATCACATGATTAATAATTGTAACGGTTTGTGGAACGGTATTGGTAGTAGCTTGTACTTCGCATGAAAGTAGAAGCTATC  
GCCTCTAGTTTGGGTATTGATGTGGATGCGAATCTGTGATTCCAATGCGGCTGTGGAAGGGTGCAGATTGTTTGTGTACCGTTAAAGAAATTT  
AAAGATATTTTCCAGAGGATGCCAAGGTTTGTATCGTTAAAGCTATACCAATCGTAAAAAATGAAGAAGATTGTTGTTCCGGTTCTCAAGGAA  
ATGAGTGGCAAGGAA

SEQ ID 510

LKKETNHMIKIVTVCGNGIGSSLLLRMKVEAIIASSLGIDVDAESCDNSAAVKGADLFVTVKEFKDIFPEDAKVCIVKSYTNRKKIEEDLVPLKE  
MSGKE

SEQ ID 511

ATGACAGTAGTGCCAGTCACAATCATGACTATCATACTAACCAATCCACCAACAAAACCTTGAGATAAAACCAATCAATACTGCATTAGGTGCA

SEQ ID 512

MTVVPVTIMTIILNPPTKLEIKPINTALGA

SEQ ID 513

ATGAAAGGTCATTGGATTTTTTAGTTAATATTGCCAGCAGCCAGCTATTTTAGTCGCCTTGATAGCCATTATCGGTTTAGTACTGCAGAAAAA  
GGCGTTCCTGATATTGTGAAAAGGTGGAATAAAAAAGTTTGTGGCTTCCTTAGTGTTTCTGGAGGTACAGGGATAGTCAAAAATCCTTGAATCCA  
TTGGAAAAATGTTTGAACATGCTTTTCATTTGGTGGGGGTAGTCTTCAATAATGAAGCCATTGTAGCAGTAGCTCTTACGAAGTATGGCTCAGCA  
ACTGCTTTGATTATGTTAGCGGGAATGATTTTTAATATTTTAATTGCTCGTTTCAAAAATTTAAATATATTTTCTGCAGGACATCATACATTG  
TATATGGCTTGTATGATATTGCTGTATTTTTGCGGTAGCAGGCTTTACTTGTCTTCGCTCATCCTTTTGGAGGCTTAGCGTTAGGGATTATTATG  
ACGCTATCTCCTGTGCAATTTGTGCAAAAAATACATGATTTCAACTGCACAGGTAAATGATAAGGTGGCCTTTGGGCACTTTGGTTCTTTAGGCTATTTGGTGT  
AGTGATTTATTTGTTGGAATTTGTGGAGATAAATCAAAATCAACCAAGATATTTAAATTTCCAAAGAGTTTATCATTTTACGTGACAGTACCGTA  
AGTATTACTATCTCAATGGCAATTTATTACCTTATCGTTGCAGTGTTTGTCTGGTGGAGGCTTATTATTGCAAAAAGAAATAAGTAACGGTGCTCAATGGT  
CTTGGTTAGTGGCCCTCAACTAGCTAGCTGGGCAATTTGCGGCAGGTGTAATTCGTTATTTAGCAGGTTGTACGCCTTATCCTTAGGTGAAATGTACACGCC  
TTTAAGGGAATCTCAGAAAAATTTGGTTCCAAATTCAAAACCGACGCTTGGATTTGTCCAATTTTACCCTTATGCACTTAATGCAGTATTGATTTGGT  
TTTATCTCAAGTTTGTGGTGATTTGGTATGATATGATAGTATCATGATTGTGACTGGCACTACTGCTACTTATTCACAGGAGGTGCTTCTCATTTCTTC  
TGTGGGGCAACGGCAGGTGTTATCGGTAATGCTTCTGGTGGTGTGAGAGGAGCGACTATTGGTGCATTTGTTCAAGGTATCCTCATCAGTTTCTTG  
CCGATTTCTTGATGCGCTGACTAGGTGGACTTGGTTTCAAGGGTCAACATTCCTCAGATGCTGATTTTGGTTTACCGGTATCATTTCTTGGCGCT  
CTTAATCATGTGCGCGGTGCGATAGCTATTGTTATTGGTATTGTAGTTATCTTAATTGGACTTTTGGCATTTTCATTTGTTGGAAAAATCAACCCAT  
AAGGAAGGT

SEQ ID 514

MKGLLDLFVNIAS TPAILVALIAI IGLVLQKKGVDPIDVKGGIKTFVGVFLVSSGGTGIVQNSLNPFGKMF EHAFLHVGVPVPPNEA I VAVALTKYGSATALIMLAGIMFNILARFTKFKYI FLTGHHHTLYMACMIAVIFAVAGFTSFS LILPGGLALGIIMSVSPA FVQKYMIQLTGNDKVALGHGFSGLGYWLSGFIGGIVGDKSKSTEDIKFPKSLFLDRDSTSITISMAIYILVAVFAGEAYIAKEISNGVNLGVYALQLAGQFAAGVFVILAGVRLILGEIVPAFKGISEKLVPSKSPALDCPIVYPYAPNAVLVIGFISFVGVLVSMIVMIVTGTTVILPGVVPHFFCAGTAGVIGNASGGVRGATIGAFVQIGILISFLPIFLMPVLGGLGFGKSTFSDADPGLTGILGALNHVGGAAIIVGIVGIVLIGLFGISFVGKSTHKEG

SEQ ID 515

ATGGAAGCATTATTATCATTTATTTCGAGATATTTTAAAGAACCCTGCATTTTAAATGGGCTTGATTGCCTTTGCAGGGTTGGTGGCTTTGAAAACA  
CCTGCTCATAAAGGTGTTGACAGAGAACTTTGGGGCCGATTTTGGGATACCTTATGCTTGTGTCAGGGGCGGGGTGTATTGTGACCAATTTGGGACCTT  
CTTGCCAAACTCATTTGAGCAGCGTTTGTAGCATCACTGGCGTAGTGCCAAATCAAGAAACCGCTCACTTGTGCGCTCAAAAGATTCTGGGTGTGGAA  
ACTATGTCATCTTGGTGGTGGGTATTGTCCTCAATTTGGCTTTTGTCTGTTTTACCGGCTTCAAATACATTTTCTTAACAGGACATACACAGTCT  
TTTATGGCTTGTCTCTTGTCCGCGCTGCTTGGAGCTGTTGGTTCCTTCAAAGGAAGTCTTTTGATTATCTTAGATGGGTTCTCCTTGGGAGCTTGGTCA  
GCTATTTTCCGCGAGATTTGGTCAACAGTATATCTGAAAGTGACTGACGGAGATGAAATCGCTATGGGACACTTTGTTAGTTTGGGCTATTACCTT  
TCTGCTCTGGGTGGTAGCAAGGTTGGCAAAGACCTGAAAGATACCGAAGACCTTCAGATTCTTCTGAAAATAGGAGTTCTTTCGCGCAACACCCATT  
TCAACAGGACTTATCATGGTGATTTTCTACTTGGTGGTGAACAGTGGCTCTGTTTTAGGAATGCTTCAGTAGCAGAAGAATTAGCAGCAGGCTCAA  
AAGCCATTATTTTGGCCATTAAAGAGTGGTCTTACCTTTGCGGTTGGTGTGGCAATTGTCTACGCGGTGTTTCGATGATTTTGGCTGACTTGATT  
CCAGCCTTCCAAGGTATTGCTAACAAATTAATTCCAAATGCTATTCCAGCGTGGATTGTGCGGTATTCTTCCCTTATGCGCCAACCGCTGTTATC  
ATCGGTTTTCGCGTCAAGTTTCTGTTGGTGGCTTACTTGGGAGTTGATTATTAGGAGTTGCAGTGGGTGCTGATTATCCAGGATATGGTGCCAT  
TCTTCTGCGGTGCAACAGCAGAGATTTTGGAAATTCAACAGTGGTGCCTGCGCGTGCAGATGATTGGTGCTTCGCTAATGGCTTATTACTCGCCT  
TCTTGCCAGCGCATGCTTCTACCTGTACTTGGTAACTTGGTTTTCACCAACGACGACCTTTGGAGATGTGGATTTCGGTGGTTT

SEQ ID 516

MEALLSFIRDILKEPAFLMGLIAFAGLVALKTPAHKVLVTGTLGPILGYLMLVAGAGVIVTNLDPLAKLIEHGFSTITGVVPPNEAVTSAQKILGVE  
TMSILVVGILLNLAFARFTRFKYIFLTGHHSFFMACLLSAVLGAVGFKGSLIILDGFLGAWSAISPAIGQQYTLKVTDGDEIAMGHFGSLGYYL  
SAWVGSKVGKDSKDTEDLQISEKWSFLRNTTISTGLIMVIFYLVATVASVLRNASVAEELAAGQNPFFIFAIKSGLTFAVGVAVIYAGVRMILADLI  
PAFQGIANKLIPNAIPAVDCAVFFPYAPTAVIIGFASSFVGGLLGMLILGVAGGVLIIPGMVPHFFCGATABIFGNSTGGRRGAMIGASLMAYYSP  
SCQPCFYLYLVNLFVOTREPLEMNVYFT

SEO ID 517

ATGACATCACCAGAAGAAAGATATTCATCTCTAAGACGATTTGCAACGGAGATTCTGTTTAAATACTCTAGAAACGCTAAACCATTTAGGATTCCGGT  
CACATATGGGGGTAGTGTATCAATTGTTGGGCTTTGGCTGTTCTGTATGGTGATATTATGGATATAAATCCTGAAAAATTCAAAGAAAGTGATCCGG  
GATTATATGGTCTTATCAAAAGGACATGCGTGGTCCAGCTCTGTATAGTACACTATTTAAAGAGTTTTTTGTATAAAACATTTCCTTCATTCGCTC  
AATACAAAACGGTACCAACTACTCTCGCATCTGACCGCAATTTAACTCCTGGTATAGATGTACACGACAGGCTCGTTTAGGTCAAGGCTATAGTATT  
GCAACGGGAATTGCTTATGCTCAAAAGATTGAGAATTCAAGCTATTATACCTTATACCTATTGTAGGTGATGGTGAAATTAAATGAAGGACAAATGTTGG  
GAGGCTATACAATTTGCTGCGCATCATCACTGCACCATTTAATTGTTTTTGTAGATGATAATAAAAAACAATTAGATGGTTTGACAGCTGATATT  
TGTAATCCTGGAGACTTTGTTGCTAAATTTGAAGCTTTTGGAGTTTGTAGATTGATGCAGTACGTGTAAAGGAGATGACATTTAGGCCAATGACAAAGCTATT  
AAAATCTTCAAGATTCAATAGTGTACAGACAAAATGTTGTTTTAGATAGCATCAGGGGACAGGTTGAAAGGTTGGAGGATTAGCTTCT  
AAACTCATTTTACGACGACGATTTACAACAAAAACAATGTTAGACGCGAGCGTTGATAAGCTTGAGAGAAAGTTTGGAGGTCGGTAGAA

SEQ ID 518

MTSP EERYSSLR RFATEIRLNTLTETLNHLGFGHYGGSLSIVEALAVLYGDIMDINPEKFKESDRDYMVLSKGHAGPALYSTLYLKGFFDKTFLHSL  
NTNGTKLPSPDRNLTPGIDVTTGSLGQGISIATGIAYAQKIENSSYYTYTIVGDGELNEGQCWEAIQFAAHQLHLHIVFVDDNKKQLDGLTADI  
CNP GDFVAKFEAFGFDVAVRKGDIEAIDKAIKTFQDSNSVRPKCIVLDSIKGQVKELEELASNNHLPDLOQKTM LERALISLSRESLEVVE

SEQ ID 519

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GAGGTTTTACTTATGACATTTGATGCAATTGACCACTTGGCAGTAAACACATGCTCCGCACCCCTATCAATGGATGCCATTCAAGCGGCAAAATCTGGA  
CACCCAGGACTTCCAATGGGGGAGCAGCACTATGGCTATGTTCTTTGGAATCACTCATGAACATCAATCCCAAAACAGCGCTAATTGGTCAAAC  
AGAGACCGTTTTATCCTATCAGCAGGTCATGGAAGTGCCATGCTTTATAGCTTGTTACACTTAGCTGGTTATGATTTATCTGTAGAAGATTTAAAG  
AATTTCCGTCATTTGGGGTTCTAAAAACACAGGTCAACCAGAAAGTGAACCAACACAGACCGTGTGGAAGCAACACAGACCTTTTGGTCAAGGGATC  
GCAAAATGCGTTGGGATGGCCATGGCAGAAGCTCATCTAGCAGCTAAATTTTAAACACACAGGCTTTGACATCTGTGACTACTACATTTGCTTTG  
AATGGTGACGGTGACCTTATGGAAGGGGTGAGCAAGAAGCAGCAAGTATGGCAGGACATTTAAACATTTGGGAAATTGGTCTTGCTATATGATTCA  
AACGACATCTCTTTGATGGTCCAACTCTATGGCTTTACAGAAGATGTGAAAGGACGTTTCGAAGCTTATGGTTGGCAACATATCCTTGTGAAA  
GATGGAAATGATTTAGAAGAAATTGCAGCTGCTATTGGAAGCAGCTAAAGCTGAAACTGAGAAACCAACCATCATCGAAGTCAAAACCATTATTGGT  
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CAAGATTTGAAGTGCCCTTGCTGAAGTAAACAGAGCGCTTTGCTCAAGGTTCTTCAAGCGCTGGTGTGAAAAGCAGAACAGCTGGAATGACTTGT  
GCAGCTTATGAAGCAGAATATCCAGAATTAGCAGCAGAATACAAAAAGCCTTTACTAACGAAGCTGCTCAAGTAGAACTGAAGCGCACGAACCTT  
GGTAGCTTCAATGGCGAGTGTGTTATCAGTCAACAGGCCATCCAAACAAATTCAGAACAGTAGTACCTCTTCTGGGGTGGGTGACGACACCTTTCA  
GCTTCAACCAATATCTGTTTAAAGCTGAACAGATTTTCCAACAGGTCACCTACGAAGGCGTGAACCTCTGTTTGGCGTTCGTTGAATTTGCCATG  
GCTGCAGCCATGAACGGTATTGGCCCTTACGGCGGAGACGCGTTTACGGCGGAACCTTCTTTGCTCTCAACATCTCTTCTCCAGCTGGTTCGT  
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TTGGCAAGTGTTCGCTCAATGCCATCTTGAACGTTATTTCGTCCAGCAGACGGTTAACGAAACAAATGCTGCTTGGAAACGTTGCCATTGCTGAACAA  
GATCGCCCAACCATGCTTGTATTGACGCGTCAAAACCTCCAGTGCTTGAGGCGCAAAAAGAAATTGGCAGAAGATGGTCTTGAAGCAAGGAGCTTAT  
ATCTTGTGAGAAGCCAAAGGCGACCTTGATGGTATCTTGATGCAACAGGTTCAAGAAGTGAACCTGGCAATGGATCTCAAGAAGCTCTGAAGCA

GAAGGCATTCATGTGCGTGTCTATCTATGCCATCAAAAATATCTTTGACGAACAGTCAGCAGAGTATAAAGAAAGCATCTACCAGCAGCTGTG  
ACTAAACGCTCTCGTATCGAAGCAGGTTCAAGCTTTGGCTGGGCAAAAATATGTCGGCCTATCAGGAAAAACATTGACCATTGACACTTGGGGTGCT  
TCAGCTCCAGGAAATCGTATCTTCGAAGAATATGGTTTCACTGTGGCAAATGCAACTGAGTTATACAAATCACTC

## SEQ ID 520

VATVSTGSLIFIVKKNPPMMSKLVFFWQNRKEFRDFGGFSEKSVYFCDTIDNRKRLILVVINREVLMTFDAIDQLAVNTVRLTSMDAIQAANS  
HPGLPMGAAPMAYVLWNHFMNINPKTSRNSNRDRFILSAGHGSAMLYSLHLHLAGYDLSVEDLNFRQWGSKTPGHPEVNHTDGEVATTGPLGQGI  
ANAVGMAMAEHLAAKFNPFGDIDVHYTFALNGDGLMEGVSQEASMAHGLKLGKLVLLYDSNDISLDGPTSMFTEDVKGRFEAYGWQHILVK  
DGNDELEIAAAIEBAKAETEKPTIIEVKTIIGFGAEKQGTSAVHGAPLGAEGIAFAKKAYQWTHQDFEVPAEVTERFAQLQARGEKAEQAWNDLF  
AAYEAEPBELAAEYQKAFNEAAQVELEAHELGSMSASRVSSQAIQQISEQVASFWGGSADLSASNNTMVKAETDFQPGHYEGRNIWFGVREFAM  
AAAMNGIALHGGTRVYGFVFSNYLLPAVRMAALQNLPTVYVMTHDSIAVGEDGPTHEPIEQLASVRSMPLNLRVIRPADGNETNAWVKRAIAET  
DRPTMLVLTRQNLPLVLEGTKELEADGLSKGAYILSEAKGDLGILITATGSEVKLAMDTQEALEAEGIHVRVVSMPSONIFDEQSAEYKESILPAAV  
TKRLAIEAGSSFGWAKYVGLSGKTLTIDTWGASAPGNRIFEEYGTVANATELYKSL

## SEQ ID 521

ATGAGATGTTCAACCAAAGAAATGAGGCTTGCTCTATCGTGATTCTCTCTCAAGCTAATCAAGAAAATAAAACAAATTACCGTTTGAAGCCGAT  
TTGTGCGATTCAATGTCAACAAATGCACCTGGCATCAGAATTTGGAACACGTTATATTAATCTAGGTATTATGGAGGCTGAGATGGTAGGCCCTTGCA  
GCAGGGCTCGCCATTAAGGTTACAAGCCATACCTTCATACTTTTGGTCTCTTCGCGTCAAGGCGTGTCTTTGATCAAGTATTCTTATCGTTAGGT  
TACTCACAATTATCAGCTACGATTATTGGCTCAGATGCAGGAATTAGCGCAAGAAATGAATGGCGGAACCTCATATGCCTTTTGAAGAGTTAGGCTA  
CTAAGGTTAATGTCRVCYAGGCTATTCTTTGAGGTTAGTGTAGTGTATGTTTGAAGCAATTTTAAACAAACATTAAGATTGATGGCCATAAA  
TACATTAGAATATTCTGAAGGCCCTTGCAGTTTATGAGGAGCGCGAAGATTTTCAAAGGGTTTATACAATTACGCCAGGGAAGATATT  
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AAAATTAAGCCCTTCCAGAAGAACTGAAACCATTACTGATAGATCAATCCATTGTAATATTGAGAATCATAACCGTATTGGCGGTATCGGAAGT  
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TTAGAGGAGTATGGACTCGCTGTTAAAGATATAGTACAGCATTGCAATCAATTTATAAATCA

## SEQ ID 522

MRCSTKEMRLVYRDFLLQANQENKQITVLEADLSSSMSTNALASEFGRKRYINLGIMEAEMVGLAAGLAIKGYKPYLHTFGPFASRRVFDQVFLSLG  
YSQLSATIIGSDAGISAEMNGGTHMPFEELGLLRILPKATIFEVSDDIQFEAILKQTLSDGLKYIRTIRKAPTAVYEGREDFSKGFIQLRQKDI  
TLVASGIMVSRATBAADYLKELGIEASVLDLFKIKPLPEELKPLIIDQSVITENHNRIIGGIGSALCEWLSMEKDDTVSRMGIDIRFQVQGMAYL  
LEEYGLAVKDIVQHCKSIYKS

## SEQ ID 523

ATGCTAGATAAAATTAACAATACCTTTTCAAGCTCGCATACGACCACCCCTTTATTTTATAGTAAGGATAAAATACCACAAGATCTTATACAA  
AAGTTAAATTTTCAAGAAATAACAAAAAGGCAACTCCAATGTTGCCTTTTGTATGATTTA

## SEQ ID 524

MLDKIKTIPFQARITTTPLFLVRIKYHKILIQNLKISENNKKATPMLPFCYDL

## SEQ ID 525

TTGACAAGTTTATCGCTAACATTCTCTTATCAACCAAATTTAGGATACTTGAAAGTTACTTTCAAGGTATTGAAAATATGTATTTTACCACAAG  
GTAATGGCTGTATTTTCAATGATTGTCTTCTATGTCACAAAATTTGGTCTTGGACAAGCGGACATGGAAGTGAATTTGCAAAGACTATTGGCAGT  
GCGGGATTATATCTTTTCTAAGTATTGTTTTTGTAGCTTATTTTCGGAATTTTTTAAAGTATGAAATTTGGCGTTTTATTATCGCTTTGTTTTAT  
TTAGCTTATATTTTGGGATTGGTACATATCTTTTATGATTATTAGGAGATAGGATATAGGAAATACCTTTACTCAGTTTAACTCGTATTAGGTTATGCT  
GTCATTGGGGTTATATCTGGATTATATATTATTTTCTATATCTAGAAATGCGTTTTCGTCGTTAGGGTACGTTCAAAGGTTACTCATCTTAAC  
CATGATCAACTAGGATTGAAATAGCAATGAAGCGCTCTTATCATGATGACTATGGACAATTTACTTTTTTAAATTTTAAAGTATGAAATTTGAA  
TCAGCAGCTCATCTTTCTCGATATCAGGTGGTCTATGATAGAGTATTTTTTAACTGTTAAAGCTTCAGGAGATTATACGAAATCCATTACAAA  
CAGCTAAAAGTTGGGACAAAATAGCCTTAGATAGAGCTTATGTCATATGTTATTTGATAAAGACAAGAAAGACAGGTTTGGATTGCAGGAGGT  
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CAGTCTGTTTTTGAAGGACAACCAACAATATTTATGTGTGGGCCAAGTATGATGATCTACTTATGCTAAGGCTTTTCGGCAAAAAGATGCAAG  
TCTCGTTTATGCTATGAAGGATTTCTCTTATAGAGCAGTTGGTTATCCATATTTCTATTAATAAATTTTGACAAAGTTTATTCTAATTTGATAAAA

## SEQ ID 526

MTSLSLTFLSLTKFRILEYSFQGIENMYFYHKVMVFSMILLHLKIGLQGQGHGSEFAKTIGSAGLYLFLSIVFVAYFGNFKLYEIRWFHHRVY  
LAYILGLVHTFMLDRLGNLTLSLIVLGYAVIGVISGFYIIFLYSRMRFRVGVYQVTHLNHDTTEIBIAMKRPYRYDYGQPTFFKIIYQAGFE  
SAHPFISIGGHRDRIFLTVKASGDYTKSIYKQLKVGTKIALDRAYGHMLFDKDKKEQVWIAGGIGITPFIISFIRENSILTKRVDFFYTFPSNQDNL  
IYQDMLESYAKANPNFKLHLNSSLKGRDLFSQSVFEGQPTIFMCGPTSMSTYAKVFRQDKASRLVYBGFSSFRDSWLSIFLLKTFDKVYSNLK

## SEQ ID 527

ATGGCAATCTCAAAAGAGAAAAAATGAAATCATTTGCTCAATATGCACGACACGAAGGTGATACAGGATCAGTTGAAGTTCAAGTAGCAGTTCTT  
ACTTGGGAAATCAACCACCTTAACGACCACATCAAAACAACAAAAAGACCACGCTACTTACCGTGGATTGATGAAAAAATTTGGTCACCGTCGT  
AATTATTAGCATACCTACGTCGTACAGATGTTAACCGTTACCGTGAATTGATTCAATCACTTGGACTTCGTCGT

## SEQ ID 528

MAISKEKKNEIIAQYARHEGDTGSVEVQVAVLTWEINHLNDHIKQHKKDHYRGLMKKIGHRRNLLAYLRRTDVNRYRELIQSLGLRR

## SEQ ID 529

ATGGCAATCTCAAAAGAGAAAAAATGAAATCATTTGCTCAATATGCACGTCATGAAGGCGATACAGGTTCAAGTTGAAGTTCAAGTAGCAGTTCTT  
ACTTGGGAAATCAACCACCTTGAACAGCCACATCAAAACAACAAAAAGACCACGCTACTTACCGTGGATTGATGAAAAAATTTGGTCACCGTCGT  
AATTGTTGGCATACTACGTCGTACAGATGTTAACCGTTACCGTGAATTGATTCAATCACTTGGACTTCGTCGT

## SEQ ID 530

MAISKEKKNEIIAQYARHEGDTGSVEVQVAVLTWEINHLNSHIKQHKKDHYRGLMKKIGHRRNLLAYLRRTDVNRYRELIQSLGLRR

## SEQ ID 531

ATGGAGAATAATATGTCAAAACAAGTCTTTGAAATGATTTTTGTGGAAGAAATTTAGTTGTTGAACTGGCCAGTGGCTAAACAAGCAATGGA  
TCAGTTGTGCTGTTCTGTTAGGAGATTCTACTGTACTCACAGCAGCAGTTATGTTCTAAGAAATGTCAACAGGTGATTTTTTCCCACTTCAAGTCAAT  
TACGAAGAAAAAATGTATGCTGCTGGGAAATTTCCGGTGGCTTTAAACAACGTGAAGGCGCTCAAGTACGGATTGCTTACCTTAAACAGCAGCTCTT  
ATTGATAGACCAATCCGTCGATGTTTGTGAGGGATTTCGTAACGAAGTACAGTTCATCAATACTGTTCTTTTCAATTTGATGAAATGTCAGCGCA  
CCAATGGCTGCTATGTTTGGTTTCATCATTAGCATTATCGATTTCGTAATTCCTTTCAATGGGCCAATTGCTGGAGTTCAAGTTGCTTATGTTGAT  
GGTAATTTTATTAATCCGACAGCACAGAACAAGAGGCTTCTGCGTTAGAATTAAACGGTTGAGGTTACTAAGAAGCGAATTAACATGGTTGAA  
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CAGGCTGCAGTACAGTTGAAGAGAAAAAGGCTAGAGAAGCAGCTACAGAAGCAGTTAAAGAAGTAGTTATAGGTGAATATGAGGCACGTTACGCT  
GAACATGAAGAATATGATCGCATATGCGTGATGTTGCTGAAATTTTAGAACAAATGGAACATGCAGAAGTTTCGTCGCTCATTAAGAGATAG  
ATTCGTCGTATGGACGTCGTGTTGATGAGATTTCGTCATTAGACGCAGAGATTGATTTTTTACCACAAGTTTCATGGATCAGGTCTCTTTACACGA

GGACAAACCCAGCATTATCAGTATTAACGTTAGCACTATGGGTGAAGCAAAATCATTGATGGGCTAACACCAGAGTATAAGAAACGCTTTATG  
CACCCTATAAATCTCCCAACAATATTCAGTTGGTGAGACGGGACGCTTATGGAGCTCGAGGGCGTCGTGAAATTTGGTCACGGTGCTTTAGGAGAGCGT  
GCATTAGAAACAAGTCTCTCCCAAGATTGGAGAGGTTCCGTATGCTATCCGACTAGTTGCGAAGTCTTTAGAAATCAACCGGTTTCATCATCTCAGGCT  
TCTATATGTGCTGGAACGCTTGCTCTTTATGGCAGTGGTGTGTCCTATAAAAGCTCCAGTTGTGCTGTTATTGCCATGGGGCTCATATCAGATGGAACA  
AACTATACAGTCCCTCACTGATATCAAGGATTAGAAGACATTTTGGCGATATGGACTTTAAAGTTGCGGGTACACGTGAAGGGATTACAGCACTT  
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GGTAAAGGTGGCGAAACATATCGATAAAATCATCGCTGAAACAGGTTGTAAAGATTGATATGATGAAGAAGGAATGTATCTATCTCTCTAGTGAT  
CAGGCTGCTATTGATCGTACGAAAGACATTATTGCAAGTTTAGTACGTGAAGCAAAAGTGGGAGAAGTTTACCATGCTAAAGTAGTTTCGTATCGAG  
AAATTCGGTGCTTTGTCAACCTCTTTGATAAAAACAGATGCATTGTGACATATTTCAGAAATTCATGGACACGTACAGCAATGTAGCTGATGTT  
CTTGAAATTTGGTGAAGAAGTTGATGTGGAAGTCATCAAATTTGATGATAAAGGGCGAGTTGATGCTTCTATGAAAGCATTGTTACCACGTCCTCCA  
AAAGCTGCACAACTATAAAGGAATCT'

SEQ ID 532

MENNMSKQVFEIMIPAGKKLIVVETGQVAKQANGSVVVRYGDSVTLTAAVMSKKMSTGDFPFLQVNYEEKMYAAGKFPGGFNKREGRPSTDAITLTLARLIDRPIRMPFAEGFRNEVQVINTVLSFDBSNASAPMAAFMGSSLALSISDIPFNGPTAGVQVAYVDGNFTINPTAQEQBASALBLTVAVTGKEAINMVE SGAKELSEEMTLAEALKGHEAVCELIAPQEEIIVTAIGKEAEVELLQVDPLEQAEIATHNIALQAQAAVQVEKKAREATAEAVKEVIGEYEAARYA EHEFYDRIMRDVAEILQMEHAVERRLITEDKIRPDGRRVDEIRPLDAEIDFLPQVHGSLFTRGTQALSVLTALPMGEAQIIDLGTPEYKRRFMM HHYNFPQYSVGETGRYGAAGRREIGHGALGERALEQVLPRLIEFFPYAIRLVAEVLBSNGSSSQASICAGTLALMAGGVPIKAPVAGIAMGLISDGT NYTVLTDIQGLEHDHFGDMDPKFVAGTREGITALQMDIKIEGTIPQLIEEALAAQAKARFETLDVLHGATAEPRQLAPTAPKIDMIKIDVDKIKVVI KGKGETIDKIIAETGVKIDIEBGNVSIFSSDQAAIDRTKDIIASLVREAKVGEVYHAKVVRIEKGFAFVNLFDKTDALVHISEIAWTRTRANADV LEIGEENVVKVIKIDDKGRVDASMKALLPRPPKADNPDKKES

SEQ ID 533

ATGTCAAAACAAACCTTTACAACAACATTTCGACGGGAAACCCCTTGTTGTTGAAGTTGGTCAAGTCGCTAAGCAAGCCAATGGGGCAACCGTGTGTT  
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GAATTAATCAGAAGACATCATGCTTGAGGCTCTTTTAAAGAGTCAACAAGCTATTCAAGAATTAATTGCCTTCCAAGAACAAATCGTAGCAGTTGTT  
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GCCTTGTCAGATTTTGACTTTGGCACCAATGGGAGAAACTCAAACTGATGCTGTTGCTGCGCCACAGATACAAAAACGCTTTTGGCATCACTACAAT  
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GAAGACGTTGATGTTAAGTCTAATTAAGATTGATGAGAAGGGTCGTGTGGATGCCTCAATGAAAGCTTTGATTCCACGCCCACCAAAACGAGAGAAA  
AAAGACGTAAGAAATAGAC

SEQ ID 534

MSKQTFTTTTFAGKPLVVEVGQVAKQANGATVVRYGDSVLTAAVMSKKMATGDFPFLQVNYEEKMYAAGKFPGGFMKREGRPSTDATLTARLIDRP  
IRPMAEAGFNEVQVINTVLSYDENASAPMAFGSSSLALSISDIFPNFGIAGVQVGYIDGEFIINPDKEQMBASLLELTVAGSKBAINMVESGA  
ELSEIDMLEALLKHGQAIQELIAPQEQIVAAVMGKEAEVELLQVDVLQADIVAGYNAQLQKAVQVEBKREABAEAVKMEVKAEEYERYAEDN  
LATIMRDVABILEQMEHAEVRRLLITEDIKIRPDGRKIDIELRDLDAVDFLKPVHGSHVLTFRGTQALSVLTDIAPMGETQIIDLGAPEYVKRFLHHYN  
FPQYSVGETGRYGAAGRREIGHGALGERALEQVLPSPLEFPYAIRLVAEVLSENGSSSQASICAGTLALMAGGVPIKAPVAGIAMGLISDGTNYTV  
LTDIQGLEDPHFGDMDFKVAGTRREGITALQMDIKIAGTITPQILEEALAQAKKARFELDLVIEATTABPRELAPTAPKIDITIKIDVDKIKVVGKGG  
ETIDKIIAETGVKIDIDDEGNVSIYSSDAQAIDRTKEIIAGLVREAKVGEVYHAKVVRIEKFAGFVNLFDKTDALVHISEIAWTRTTNYSKRVLEVG  
EDVDVKVIKIDEKGRVDASMKALIPRPKPEKKEKHD

SEO ID 535

ATGACAAGTACAAACGAGTTAGACATTAGATTGCGTGCTTTTATCAATGCACCGGATAATTTTTTGTAGATAGTATAGGCTCTGTGAATGCCTTGCAC  
CACTCTACGCTTTGGGCAAGAACGGAACCCCTATGCTATTCAAGTAGATGGTCAAGAAGTTGTTCTCTGTTTTTACGGATATTACTGACCTTAAATCAT  
TTCAAAGGAGGACGAAGAAGTGCTCGAGATATGTTTTTGGGAGAGTCTGCTAGTTTGTAGACGCTTCTGTGATGAAGCTATTTTCACATGGCTTAGCAGGA  
TTGGTCTATAATTTAAAAAAGAGGCGATTTTGGGAACCTCGACTATTTTCTACTGTGAAGATATAGTGGCAATTTAAGAATAATTACACCAACAATC  
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TTTGACCGTCTTTTCCCTACAATGCTCACCACCAAGGAAAAAGTTATGTTCCAGATTCTCAAACTTTTAAAGTTTGAAAAATGGTATAACCAT  
ATGATATTTTGGTGGTGCTTTTAGGAAACCCACGAGGATAATTTTAGCCTGGACGATTGACGATATTTATAAACCCGCGTAATGGAGAAAAATGAGATT  
GATGATACCTTTGGAGTAGCCATCAATCCATTTGATGAACACAAGCTTTTAGTTGATTGGTCTGATGTAGAAAAAGTAT

SEO ID 536

MTSTNELDIRLRAFINAPDNFLDSIGLVNALHHSTVWASKEPYAIQVDGQEVVPVFTDITDLNHFKKEQESARDMFWESRRSLDVLDEAISHGLAG  
LVYNLKKKEGDFGNSTIFYCEDMVQFMNNYTTILNQLNEDNIIVADIMDKTYLVPAPVHPREEGSFDRLPPTMSTPEGKSYVPVFSNLLSFEKWYNH  
NDFGGAFRKAQGVILAWTITDDIYKPRNGENEIDDTFGVAINPDEOQOVLVDWSDVEND

SEO ID 537

ATGACTAAATCAAATGAATTAGATATTGCGCTTAAGAGCTTTTATCAATGCGCCTGATAACTTTTTGGATAGCCTTGCGCTTGTCACAGCTTTCCAT  
AATTTTCTGTCTGCGGCTCTAAAGAACCCCTACGTGATAGAAAGTCGAAGGTGTCAAGGTTACCCCTGTTTTTACCGATAAGCAAGATATGGCTCGC  
TTTAAAGAAGAAACAAAAGAGTGCTCAAAGTCAGTATTGGCTGGAGCGGTTACGCTTGCGAGTGTAGCAAGAGTCAATTACGCTTGCTGGTCAGCAGGT  
CTTATCTTTAACTTTAAAGAAAAGGGGAGATTTGGGAATTTACCAATTTCAAAGCAGTGATATGATTCAAITTTATGAACCATTAACCACTGTG  
TTAAATACGCTTATGAGTGATGACAATGTGGCGGCAGATACGATGGAAAAGGTTTACCTTGTTCCTGCTCTTTGTTTATCTAAAGATAATAACCAT  
TACGACGCCCTTTTCTTCCATCAGTGTCAACGCCTGAAGGAAAGAGCTATGTTCCTCGCCTTTTCAAATTTCAAAGCTTTGCGAATATGGTACAAACCA  
GACGATTTTGGAGGCTCTTTTCAGGAAGCTGAAGAGGAGTGTCTGACTTGGACGATTGATGATATTTATCAACCAAGAAATGGTGAAAACGAGCTT  
GATGAACAGTTTCGGTGTCGCCATCAATCCTTTTGATGACCAACAAATTTCTGTTGATTGGTCAGAATTAGATAAGTCG ...

## SEQ ID 538

MTKSNELDIRLRAFINAPDNFLDSLALVNAFHNFPVWAAKEPYVIEVEGVKVPVFTDKEDMARFKKEQKSAQSQYWLERSALAVLEEVITSGAAG  
LIFNLKKKGDFGNSTIFKSSDMIQFMNHYTTVLNLTMSDDNVAADTMEKVYLVPFVYPKDNNHYDRLFPMTSTPEGKSYVPAPSNLQSPAKWYNQ  
DDFGGLFRKAEGVILTWTIDDIYQPRNGENELDETFGVAINPFDQDQILVDWSELDKS

## SEQ ID 539

TTGAGGATAACTATGGGGTGGTGGAAAGAAAGTATAGCTATTGTCAAAGAAACAAGATCCAGCTGCTCGTAGTTCTCTAGAAGTTATTTTAACTTAT  
CCAGGAATAAAAGCTCTTGCAGCTCATAGGCTATCTCATTTTTTTATGGAATCATAATTTTAAATTTGTTAGCACGTATGCACAGTCAATTTTGGCGT  
TTCTGGACACAAATTTGAAATTCATCCCGGAGCGACGATTTCGGAAGGGGTTTTTATTGACCACGGTTCAGGATTGGTCATTGGAGAACTGCCATT  
GTAGAGAAAGGTGCTATGCTATACCATGGGGTTACATTGGGTGGCAGGTAAGACAAAGGCAACGACACCCAAACCATAACGTAAAGGAGCGCTA  
ATTTGAGCACATTCTCAAATCATTGGTCCAATTGAGGTTGGAGAAAATGCTAAAGTCGGTGCTGCAGCAGTTGCTCTGCAGATGTGCCAGCAGAC  
GTACAGTAGTTGGTGTTCAGCTAAAGTTGTCCGTGTCCATGGTCAAAGGATGATCTTCAAATCCGAAGTATTGAACATGATCGAGAAGAAAGT  
TATTATTCGTCCAACTT

## SEQ ID 540

MRITMGWVKESIAIVKEQDPAARSSLEVILTYPGIKALAAHRLSHFLWNHFKLLARMHSQFWRFWTQIEIHPGATISEGVFIDHGSGLVIGETAI  
VEKGAMLYHGVTLGGTGGKDKGRHPTIRKALISAHSQIIGPIEVGENAKVGAAAVVLADVPADVTVVGVPAKIVRVHVGQKDDLQIRISIEHDREES  
YYSKL

## SEQ ID 541

ATGGGTTGGTGGAAAGAAAGTATAGCTATTGTAAAGCTCTAGACCCAGCTGCTCGTAATAGTCTTGAGGTTATCCTAACTTATCCAGGCATCAAA  
GCCCTAGCTGCTCATCGTTGTCTCATTTCCTTTGGCGACATCATTTTAAATTACTAGCCAGAATGCATAGCCAAATTTTGGCGATTTTGGACACAA  
ATTGAAATCCATCCTGGAGCACAAATCGCTCCTGGAGTCTTCATTGACCATTGGTGTCTGGTCTTGTATTGGAGAGACAGCAATTTGTTGAAAAGGT  
GTGATGCTTTATCATGGGGTGACCTAGGTGGAACCGGAAAAGATTGTGGCAACGCTCATCCAACGGTTCGACAGGTGCTTAAATTTCCGGCAGAT  
GCCCAAGTGATTGGACCTATTGACATCGGAGCAAAATGCTAAAGTAGGGGCGAGCTGTTGTGTTATCAGATGTTCTGAAAGCGTGACAGTTGTA  
GGTGTGCCAGCTAAGATAGTACGAGTGCTATGGGCAAAAAGATAATCGTCAAATTCAAAGTTTACAAAAACAACGAGAGGTCTCTTATCAGTTGTCA  
AAA

## SEQ ID 542

MGWVKESIAIVKALDPAARNSLEVILTYPGIKALAAHRLSHFLWRHFKLLARMHSQFWRFWTQIEIHPGAQIAPGVFIDHGAGLVIGETAIIVEKG  
VMLYHGVTLGGTGGKDKGRHPTVRQALISAHQVIGPIDIGANAKVGAAAVVLSVDPEDVTVVGVPAKIVRVHVGQKDNRIQISLQKQREVSQYLS  
K

## SEQ ID 543

GTGAAGGATTATGTAACTCAAAATATTATCAATCTTAGGTATACTAGCAGCAGCTTGTTTAAGCTATTTAAAGTTTGCACAAGGTAACCCCTCTC  
TTAGGAATTTATTTGGGCTGCTTTTGTTTTAAATGTATGTTGTTGTTTGTATAAAGCTTATCAAAAACAGAAAAAGGAAAAACCA

## SEQ ID 544

MKDVTQTILSILGILAAACLSYLKFAQGNPLLGIIWAAAFVLMYVVRLYKAYQKQKKEKP

## SEQ ID 545

ATGATAAAAAATTTACGACACTATGACTCGCAGTTTACAAGATTTTATACCTCTCAATGAAGGTAAAGTCAACATGTACGTCTGTGGGCCAACAGTT  
TATACTATATACACATCGGGAATGCGCGAGTGTAGTAGCTTTTGATACTATTCTGCTGTTATTTTGGAGTATTGTGGTTACCAAGTCAATTATATT  
TCTAACTTTACTGATGTTGATGATAAAAAATATAAAAGGTGCAGCTGAAGCAGGATGGATACAAAATCCTTTTTCAGATAAGTTTATTTTTCAGCATTT  
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GTTGATAAGGAATTTGCTTATGAAGCTAATGGAGATGTTTATTTTAGAGTAAGTAATACATCATTATGCAAAATTAGCCAATAAAACTTTGGAA  
GATTTAGAGATTGGTGCAAGTGGTCTGTTGATGGTGAAGGAGAGATTAAAGAGAATCCTTTAGATTTTGCACCTTTGGAATCAGCTAAATCTGGG  
GAAGTCTCATGGGAAAGCTCTTGGGGGAAAGGGCGCCCGAGGTGGCATATTGAATGTTCTGTTATGGCAACTGAGATCCTTGGTGATACCTATTGAT  
ATCCATGGTGGAGGAGCTGATTTAGAATTTCCACATCACACGAATGAGATTGCACAATCTGAAGCTAAAAACAGGTAAGACCTTTGCAAAATTAAGT  
ATGCATAATGGTTTTGTTAACGTTGATAACGAGAAAAATGTCTAAATCTCTTGGTAACTTTATTACTGTTACGATATGTTGAAGAGCGTTGACGGA  
CAAGTAATACGTTTTTCTTAGCGACACAACAGTATCGTAAACCCGTGAATTTCACTGAAAAGGCCGTTTCATGATCGCGGAAGTTAACTTAAATAT  
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TTTAATACAGCAACCGTATTACTGTTATCTTTGAAATGGCAAAATGGATTAAATTCAGGACACTATACTTCAAGAGTTAAGGAAACCTTTGCTGAA  
TTATTAGAAATTTTGGTATTGATTCCAGAGGAAGTTCTTGATGCTGATATTGAATCTTTAATAGAACACGCTCAAGAAGCAGAGCTAATCGT  
GATTTTGCAACTGCTGATCGTATTAGAGATGAATTAGCAAAAACAGGAATTAATTTGTTAGATACTAAGGATGGCGTGAGGTGGACTCGTGAT

## SEQ ID 546

MIKIYDTMTRSLQDFIPLNEGKVNMYVCGPTVYNYIHIGNARSVVAFDTRIRYFEYCGYQVNYISNFTDVKDIIKGAABEAGMDTKFSDFKFI  
MEDVAALGVKPKATKNPRVIDYMBEIDFVKVLVDKEFAYEANGDVYFRVSKSHYAKLANKTLEDLEIGASGRVDGEIENPLDFALWKSASG  
EVSWESPWGKGRPGWHIECSVMATEILGDTIDIHGGGADLEFPHTNEIAQSEAKTGKTFANYWMHNGFVNVNDEKMSKSLGNFTIVHDLKSV  
QVIRFFLATQYRKPVNFTEKAVHDAEVLNLYKNTFNLPQENANDEBLEQFVKAQFQAMDDDFNTANGITVI FEMAKWINSGHYTSRVKETFAE  
LLEIFGIVFQBEVLADADIESLIEQRQEARANRDFATADRIRDELAKQGIKLLDTKDGVRWTRD

## SEQ ID 547

ATGATTAAAAATTTATGATACCATGACCCGTTTCGCTCCGCAAGTTTGTACCTTTGACTGAAAAATACAGTCAATATATACGTTTGTGGACCGACGGTC  
TATAATTATATTCATATTGGAATGCTAGATCAGCGGTTCGCTTTTGACACCATTCGACGTTATTTTGGAGTACTGGCTATCAGGTCAATTACATT  
TCCAATTTTACCGATGTCGATGATAAAATTTATCAAGGCTGCTACTCAAGCAGGTTTCTCCTAAAGAATTGTGAGATCGCTTTATTGACGCTTTT  
ATAGAAGATACCAAGGCACTTGGTGTAAAGCCAGCCACACAAAATCCTCGTGTATGGATTATATAGCAGAAATCATTTCATTGTTGAAAGTCTC  
ATTGAAAAAGATTTTGTCTACGAAGCAGATGGAGATGTGATTTCGCGTGGAAAAAGTCAGAGCATTATGCCAAGCTAGCTAATAAAAACCTGTCA  
GAACCTGAAGTTGGAGCCAGTGGTGCAGACAGATGCTGAGACAGCTTTAAAAAGAAAATCCACTGGACTTTGCTCTTTGGAATCAGCTAAGGCAGGT  
GAGGTTCTTTGGGATAGCCTGGGGGTTTGGTCTGCAGCGTGGCACAATTGAATGTTCTGTGATGGCTACTGAAATCTTTGGTGATACCATTTGAT  
ATTCATGGTGGCGGAGCTGATTTGGAATTTCTCATCATACCAATGAAATTTGCCAATCTGAGGCCAAAAACAGGCAAGACTTTTGGTAACTATTGG  
ATGCACAATGGGTTTGTCTACTGTTGATAACGAAAAATGTCCAAGTCACTAGGTAATTTTGTGACCGTTTCATGATGTTTACAACCGTTGATGGT  
CAGGTTTTCGATTTCTTTTTCGACACAACAGTACCGAAAAACCAATTAATCTCACTGAAAAGACTATTTCATGATCGCGAAATCAATCTGAAGTAT  
CTTAAAAACACCTTGCACGAACCGCTGACAGAAATGTCAGATGAGCAAGAGCTAAAACAGTTTGAATAGCTTTTCAAGACGCTATGGACGATGAT  
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ATGTTAGCTGTTTTTGGCATTTATCTTTGAAGAAGAGGTGCTTGAGGTTGACATTGAAGCCTTGATTGCCAAGCGACAAGAAGCAGCGCGGAATCGT  
GATTTTGCCACAGCTGATGCCATTGAGATCAGTTAGCAGTTCAAGGCATCAAGCTGCTAGATACCAAGATGGTGTGAGGTGGCTGCGTGAC

## SEQ ID 548

MIKIYDTMTRSLRKFVPLTENTVNIYVCGPTVYNYIHIGNARSAVAFDTRIRYFEYTGQVNYISNFTDVKDIIKAAATQAGVSPKELSDRFIAAF  
IEDTKALGVKPKATQNPVMDYIABEISFVESLIEKDFAYEADGDVYFRVEKSEHYAKLANKTLESEVAGSGRTDAETALKENPLDFALWKSASG  
EVSWDSWPWGFRPGWHIECSVMATEILGDTIDIHGGGADLEFPHTNEIAQSEAKTGKTFANYWMHNGFVTVNDEKMSKSLGNFTVHDLQTV  
QVLRFFLATQYRKPVNFTEKTIHDAEINLYKNTLQQLTETADEQELKQFVIAFQDAMDDDFNTANGITVVFDMKWINSGSYTEPVKSAFEK  
MLAVFGIIFEBEVLVDIEALIAKRQEARANRDFATADAIRDQLAVQGIKLLDTKDGVRWLRD



## SEQ ID 549

GTGATTGATGTTTCGTTTGATTAAATGGTATTGCTTTAGCTTTTGAAGGAGATGCAGTTTATTCTTTGTATATCCGACGCCATTTAATTATGCAGGGT  
TTTACCAACCTAATCAGTTACATCGGAAAGCAACCCATATGTTTCTGCTAATGCCAAGCATTGTTAATTAATGCCATGTTAGAAGAAAATATT  
TTAACTGATGAAGAGCAGTTAATTTATAAAGCAGGACGTAATGCGAATAGTCATACAAAAGCTAAAAATGCTGATATTATTACCTATCGTATGTCT  
ACAGGTTTGGAGCTCTTATGGGGTACTTGGATATGACTGGTCAGATAAAGCGCTTGGAACCTCTAATACAGTGGTGTATTGAAACCATTTGAAAA

## SEQ ID 550

MIDVRLINGIALAFEGDAVSYLYIRRHLMQGFQKPNQLHRKATQYVSANAQALLINAMLEENILTDEEQLIYKGRNANSHTKAKNADIITYRMS  
TGFALMGYLDMTGQIKRLETLIQWCIETIEK

## SEQ ID 551

GTGACTAATCCAGTTGATGTGAATTTGATTAATGGCATGCCCCTAGCCTTTGAAGGGGATGCGGTTTATCTCTACTATGTTTCGTGTCATCTCATT  
TTTCAAGGTAAACGAAACCTAGCCAGCTACACCGTTTAGCAACGAGATATGTTTCTGCTAAGGCACAAGCCAACTTGATTACAGGCTATGTTAGAA  
GCGCAGCTATTGACCGAAAAAGAGAAGACATCTATAAGCGTGGTCGCAATACCAATAGCCATACTAAAGCTAAGAATGCCGATATTATTACCTAT  
CGTATGTCGACAGGTTTGAAGCCATTATGGGTTATCTTGATATGATGGGCCAAAAAGAGCGGTTAGAAGAATTGATCAGATGGTGTATTGAGTAT  
GTAGAAAAGCAACAATTGATATCCTCA

## SEQ ID 552

VTPNPDVNLINGIALAFEGDAVSYVYRRHLIFQGKTKPSQLHRLATRYVSAKAQANLIQAMLEAQLLTEKEEDIYKGRNTNSHTKAKNADIITY  
RMTGTFEALMGYLDMMGQKRLLELIRWCIEYVEKQQLISS

## SEQ ID 553

ATGACTATGAAGATAAAACAATTAAAGAAGAATCAAGTGACCTTGTCTATGGCTTACATGCTGTGACAGAGAGTTTAAAGAGCTAATACTGGTAAAT  
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AAAACCTTATCAGACATGACAAATGGTGGAGTTTACCAAGGATTTCGTTCTAAAAGTTTTCGGAATTTGCCTATGCGGATTATCAGAGATAATGACA  
AAGGCAGAGAATGAAGAAAATCCTCTCATTTTAACTCCTTGATGGTCTGACCGACCTCACAACCTAGGTTCTATTTCTACGCACAGCTGATGCAACC  
AATGTAAACAGGTATTATCATCTCCCAACATCGTCTTGGAGTGACCCAGTGGTTTCAAAGACATCTACAGGAGCTGTTGAACATGTTCTCTATT  
GCAAGGGTAACTAATCTCAGTCAAACTTTGGATACCTTTAAAGATAAGGAGTTCTGGATATTGTCAGCTGATATGAATGGGACACCATCGCATAAAG  
TGGAATACCAAAGGTAAATTAGCCCTAGTTATTGGTAAATGAAGGAAAGGTATTTCTCATAATATCAAAAAGCAAGTAGATGAATGATTACAATT  
CCCATGAATGGTCATGTTTCAGAGTTTAAATGCCAGTGTGCGAGCCGCTATTTTGATGTATGAAGTATTTAGAAACCGCCTA

## SEQ ID 554

MTMKDKQFKKESSDLVYGLHAVTESLRANTGNKLYLQDDLGRKNVDKVKALATEKKVVISWTPPKTSLDNTNGGVHQGFVLKVSFAFAYDLSEIMT  
KAENEENPLILILDGLTDPHNLGSLRATADATNVTGIIIPKHSVGVTPVVSSTSTGAVEHVP IARVTNLSQTLDTLKDKEFWIFGDTMNGTPSHK  
WNTKGLALVIGNEGKGISHNIIKKQVDEMITIPMNGHVQSLNASVAAAILMYEVFRNRL

## SEQ ID 555

TTGAAGCATTCATGGTATAATAAATCTATGGAAGATAAAGATACTATTGAAACAAACGATATCGTCTATGGTGTTCATGCCGTTACAGAAAGCCTT  
CAAGCAATACAGGAAATAAGCTTTATATCCAAGAGGATTTAAGAGGAAAGAAAGTGAGATAACATCAAAAGCTTAGCGACACAAAAAAGGTCGCT  
ATTTTCATGGACGCTTAAAAAACCTTGTCAAAATGACTGATGGAGCTGTGCATCAAGGTTTGTCTGAGAGTATCAGCTTTTGCCTATACTGAT  
GTTGATGAGATCCTCGAAATAGCAGAGCAAGAAAGCAATCCTTTGATTCCTATTTTAGATGGTCTGACAGATCCTCATATTTAGGATCGATTTTA  
CGGACAGCTGATGCTACAAATGTATGTGGAGTGATTATCTTAAACATCGTTCTGTTGGTGTGACTCCAGTGGTTTCAAAGACGCTCTACAGGTGCT  
GTTGAACATATTCCGATAGCGAGAGTAACCTAACCCTTAGTCAAACTCTAGATAAATTGAAAGCAAGAGGATTTCTGGATTTTGGCAGACAGATGAAT  
GGAACACCGTCTGATTGCTGGAACACTAATGGTAACTTTGCTTTAGTCATTGGTAACGAAGGTAAAGGCATCTCTACCAATATCAAAAAGCAAGTT  
GATGAATGATTACGATTCCTATGAATGGTCACGTACAGAGCTTAAATGCTAGCGTAGCGGACGCTATTTCTCATGTATGAAGTTTTCGGAATAGG  
CGC

## SEQ ID 556

LKHSWYNKLMEDKDTIETNDIVYGVHAVTESLQANTGNKLYIQEDLRGKVDNIIKSLATQKKVAISWTPPKTSLQMTDGAHVHQGFVLRVSAFAYTD  
VDEILEIAEQEANPLILILDGLTDPHNLGSLRATADATNVCVIIIPKHSVGVTPVVSSTSTGAVEHVP IARVTNLSQTLDKLKARGFWIFGDTMN  
GTPSDCWNTNGKLALVIGNEGKISTNIIKKQVDEMITIPMNGHVQSLNASVAAAILMYEVFRNRR

## SEQ ID 557

ATGAAAAAACATTCTATCTTACTCGTTGATGGCTACAATATGATTGCTTTTGGAAAGATACTCGACAGCTTTTAAAGCAATCGTTTAGAAGAG  
GCAAGGGAGTATTACTTAGAAAGCTAAATCATTACGCACATTTGCAACACATTGATATTATTGTGTATTGATGCACAGTATGTTCTGGTGTA  
CGTCAACGTTTATGACCAATACAAAATATCCGTTATCTTTACTGAGGAGGACGAAACTCGGGATAGCTATATTGAACGAGCAGCGGCAGAACTTAAT  
CAATCTGTGTTAGTTTATGCTCTCGTTGCTACAGTGATTTAAATGAACAATGGACTATATTTCTCAGGGTGCTTTACGTGTCTCGGCTAGAGAA  
TTGGAACAGCGTGTAGGACAGTAAATCAGATTTGGATAAGATGTCCAGTCAAATCGATTTGAGTACGCCAAAGTTAAGGCCGTGGAATGATGAA  
CAACTAGGAAAACTCAAGGATTTTTTAGATGGTATG

## SEQ ID 558

MKKHSILLVDGYNMIAFWKDTRQLFKSNRLEEAREVLLRLNHYAHFEHIDIICVFDAQYVPGVRQRYDQYKISVIFTEDEETADSYIERAAEELN  
QSVNLNVSVATSDLNEQWTFISQGALRVTSARELEQRVATVKSDLDKMSQIDLSTPKLRPWNBQLGLKDFLDGM

## SEQ ID 559

ATGAAAAACGGATATTATTAGTAGATGGGTATAATATGATTGCTTTTGGCAATCAACCCGTCAGTTGTTTAAAGACAAATCAGCTTGATCAGGCA  
CGTAACACACTTTTAAACAAAATTAATCATTATGCCCATTTTGAAGATATTAAATATTATTGTTGTTTGTATGTTTATGCGCTATCTTACATTTATCAGGCACT  
CAACGATATGACAGTATTATATCTCAGTGGTATTACAGAGGAAGACGAAACAGCAGATAGCTACATTGAGCGCATGGCAGCAGAGTTAAATACG  
GCTATACATATGTTAGAGTAGCTACGAGTGATTTAAATGAACAATGACAGGATTTTCTCAAGGAGCTCTTCGTGTCTCAAGGAAAGATTAGAG  
CAAAGAGTTCATACTGTCAAAGCTGATTTAGATAAAATGTCTAGAGATATTGATCTCAAAACGCCATAACTGCGGCCCTTTTGACCAAGGACAGCTT  
ATTCAATTGAAGGATTTTATGTCTCAGTTAGATCGA

## SEQ ID 560

MKKRILLVDGYNMIAFWQSTRQLFKTNQLDQARNLTLLTKLNHYAHFENINIIICVFDAQYVPGLRQRYDQYIISVVFTEDEETADSYIERMAEELNT  
AIHMVEVATSDLNEQWTFISQGALRVTAARELEQRVHTVKADLDKMSRIDLKTPLKRPFDQGLIQLKDFMSQLDR

## SEQ ID 561

ATGACTTTTAAAAATACTAACGGATTTCGACATCGGATTTAGATGAAAGTGGGCTCAAGAGCACAAATGTGATATTATAGGTTTAAACATTGAACCTT  
GATGGAAGAGCTTATGAGACAGTCGGAGACGAAAAAATTAAGTGTGCTTCTGTTGGAGCGTATGCAAGAGGGAGCAAGGCTACAAACAGCCAA  
ATTAAAGTTGGTCAGTTTGAAGAAGTTTTCACCTATGCGAGAAAATGACCATGCTTGTATATTATTAGCGCTATCTTACATTTATCAGGCACT  
TACCAGAGTGCAACTATTGCGCGTGAGATGGTCTTAGACAAATATCTGATGCTCAAATGAGATTGTGGATACGATGGCAGCTTCATGTGGTGGAG  
GGTGTCTTAGCGATGTTAGCAACTAAAGAGCGCAAGAGGTAATCTTTAGAGAAGTGAAACAAAAAATTGAATCACTTCTCCCTAAATTAAC  
ACATACTTTTAGTTGACGATCTCAACCATTTAATGCGTAGTGGTTCGTTTATCAAAGGTGACGCTATCATTGGAAGTGTGCTAAGATTAACCA  
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ACACTATCTTATAGCACTTTAATATTGCTTATAGTGGAGAGAAAGATTGAGCTCAAGTTATGAAAGAACAGTTATTAGCAGATGAGCGTATTGAA  
GAAGTTATTATTCTGCTCATTAGGCGCAGTTATTTCAGTCTCATGTGGGCTCAGGTGCTTTAGCTCTATTCTCTTTAGGGGAAGAAAACCGA

## SEQ ID 562

MTFKILTDSSTDLDEKWAQEHNVDIIGLTIELDGKTYETVGVDEKITSDFLLERMQEGAKPTTSQINVGFEEVFSTYAENDHALLYLALSSHLSGT  
YQSATIAREMVLDPKYPDAQIEIVDTMAASCCEGLVLA MLATKERQEGKSLBEVKQKIESLLPKLNTYFLVDDLNLHMRSGRLSKGAAIIGSVAKIKP  
LLKLDSEGLKLVPAKTRGRKKGIKEIVTQATKTLSTYSLIIAYSGEKDSAQVMKEQLLADERIEVIIIRPLGPVISAHVSGALALFSLGSEENR

## SEQ ID 563

ATGACCTTTTACAATAATGACAGATTCAACCGCTGATTTGAATCAAACCTGGGCAGAAGATCATGATATTGTCTTATAGGATTAACGATTTTGTGC  
GATGGAGAGGTTTATGAAACGGTCGGTCTCAACCGTATTAGTAGTGATTACCTTTTGAAGAGATGAAAGCTGGCAGTCATCTCAAACCGTACG  
ATTAATGTGGGAGAGTTTGAAGAGTTTTCGTGAACATGCTAGGAACAACAAAGCAGCTGCTTTATCTTGCTTTTCTTCGGTTTTATCGGGTACC  
TATCAAAGCGCTCTAATGGCAGCGATCTTGTTGAGAGAAGATTATCCCGATGCGGTGATTGAAATTTGTGATACCTTGCTGCTGCAGGAGGAGAA  
GGCTATCTAACCATTTTAGCAGCAGAAAGCCAGAGATAGTGGCAAAAATTTACTGGAGACTAAAGATATTGTTGAAGCAGTGATCCCTCGACTGCGC  
ACCTATTTCTTAGTAGATGATCTTTTTCATTTGATGCGTGGTGGGCGTCTGTCAAAGGTTTCAAGCTTTTCTAGGCAGTTTAGCCAGTATCAAACCT  
CTTTTGTGGATTGATGAGGAAGGAAATTTGGTGCCTATTGCAAAAATTCGGGAGCGCCAAAAGCCATCAAAGAAATGTTGGCTCAAGTGGAAGAAA  
GATATTGCGGATTTCGACGGTTATTGTCTCTTATACAAGCGATCAGGGTAGTGCCGAAAAGTTACGAGAAGAGCTGCTGGCGCATGAAAATATTAGC  
GATGTTCTTATGATGCCACTAGGACCAGTTATCTCAGCTCAGTTGGTCTTAACCCCTGGCAGTTTTTGTGATTGGGCAAAATTTCCCGT

## SEQ ID 564

MTFTIMTDSADLNQTAEDHDIIVLIGLTLICDGEVYETVGPNISSDYLLKKMKAGSHPQTSQINVGEFEKVFREHARNNKALLYLAFSSVLSGT  
YQSALMARDLVREDYDPDAVIEIVDTLAAAGGEGYLTILAAABARDSGKNLLETBIVEAVIPRLRTYFLVDDLFLHMRGRLSKGSAFLGSLASIKP  
LLWIDEEGKLVPIAKIRGRQKAIKEMVAQVEKDIADSTVIVSYTSDQGSAEKRLRELLAHENISDVLMMPLGPVISAHVGPNTLAVFVIGQNSR

## SEQ ID 565

TTGTTGATGAAAGTTTTTGGAAATGTTTTTGTGCTGGCGCATTGCCCCATAGGAATAACTATTTTATTGATGCTTTTACTAGGAAGGTTGAT  
ATTGCTACTTATTTTTCAAGGGGAGATGATGCAATTTTAGCAGTTATAGGAATATCATTGATAGCTATGGGAATTTCACTGTACTACCATAAGTAT  
AAGGACAGA

## SEQ ID 566

MLMKVFGKCFCCWRICPHRNNYFIDAFTRKVDIATYFSRGDDAILAVIGISLIAMGISVYYHKYKDR

## SEQ ID 567

TTGTTTACCCCATTTGTAAGGCCCGGAACCTTTCAAATACTCTCGTGGACCGGAACATCCACACCTGTAAACAAAAACGAATTCGTATAGGAGAA  
ATCATGAACAAAAACCTTTTCATGGCTAAACCGGCAAGTTGAACGCAAAATGGTACGTTGTTGACGCAGCAGATGTACCTCTTGGACCTCTTTCT  
GCAGTAGTTGCTAGCGTACTTCGCGGAAAAAACAACCACTTTTACACACACACTGATACAGGTGACTTTGTGATTGTTATCAATGCTGAAAAA  
GTTAAATTAAGTAAAGGCGTCAGATAAAATCTACTACACTCACTCAATGTATCCAGGTGGTTTGAACAAAAATCTCAGCAGGTGAACCTTCGT  
TCTAAAAATGCTGTTTCGTTTGATTGAAAAATCAGTTAAAGGCATGCTTCCACATAACACTCTTGGACGTGCACAAGGTATGAAATGAAAGTATTT  
GTTGGCGGTGAGCATACCATGCTGCACAACAACAGAAGTACTTGATATCTCAGGACTTATC

## SEQ ID 568

MFTFFVRPRNLSNTLVDRNIHTCKQKRIRIGEIMNKTTTMAKPGQVERKQWYVVDADVPLGRLSAVVASVLRGKNKPTFTPHDTGDFVIVINAEK  
VKLTGKKASDKIYYTHSMYPGGLKQISAGELRSKNAVRLEKSVKGMPLPHNTLGRAQGMKLVFVGGEGHTHAQQPEVLDISGLI

## SEQ ID 569

TTGTTTACCCCATTTGAAAGGCCCGGAACCTTTCAAATACTCTCGATGGGACGGAACACCCATCACCTTGTAAACAAATATTACGAATTCGTATA  
GGAGAAATCATGAACAAAAACCTTTTCATGGCTAAACCGGCAAGTTGAACGCAAAATGGTACGTTGTTGACGCAGCTGATGTGCCACTTGGACGT  
CTTTCTGCAGTAGTTGCTAGCGTACTTCGCGGAAAAAACAACCACTTTTACACACACACTGATACAGGTGATTTTGTATAGCTTACACGCT  
GAAAAAGTTAAATTAAGTAAAGGCACTGATAAAGTTTACTACACTCACTCAATGTATCCAGGTGGTTTGAATCAATCACTGCTGGTGAA  
CTTCGCTCTAAAAACGCAAGTTTCGCTTGATTGAAAAATCAGTTAAAGGCATGCTTCCACATAACACTCTTGGACGTGCACAAGGTATGAAATGAAA  
GTCTTCGTTGGCGGTGAGCATACTACGCAGCACAACAACAGAAGTACTTGACATCTCAGGACTTATC

## SEQ ID 570

LFTPFERPRNLNPTFDGTEHPSPCKQILRIRIGEIMNKTTTMAKPGQVERKQWYVVDADVPLGRLSAVVASVLRGKNKPTFTPHDTGDFVIVINAEK  
EKVLTGKKATDKVYYTHSMYPGGLKSI TAGELRSKNAVRLEKSVKGMPLPHNTLGRAQGMKLVFVGGEGHTHAQQPEVLDISGLI

## SEQ ID 571

ATGGCACAAAGCACAATATGCAGGTACTGGTCGCGGTAAAAACGCTGTTGACGCGGTTTCGTTTGGTCCAGGTACTGGTAAATCACTGTTAAACAAA  
AAAGATGTAGAAGAGTACATCCACACGCGAGACCTTCGCTTGTGTTATCAACCAACCTTTTCGAGTTACTTCAACTCAAGGTTTCATACGATGTTTTT  
GTTAAGCTTGTAGGTGGTGGATATGCAGGTCAATCAGGTGCGATCCGTCATGGTATCTCAGTGCACTTTTAGAAGTTGACCCAGATTTCGCGGAT  
TCATTGAAACGCTGCTGGACTTCTTACACGTGACGCAAGCTATGTTGAACGTAACCAACAGGCTTAAAGAAAGCTCGTAAAGCTAGTCAAGTTCTCA  
AAGCT

## SEQ ID 572

MAQAQYAGTGRKNNAVARVRLVPGTGKIITINKKDVEEYIPHADLRLVINQPPAVTSTQGSYDVFVNVVGGGYAGQSGAIRHGISRALLEVDPDFRD  
SLKRAGLLTRDARMVERKKPGLKKARKASQFSKR

## SEQ ID 573

ATGGCACAAAGCACAATATGCAGGTACTGGTCGCGGTAAAAACGCTGTTGACGCGGTTTCGTTTGGTCCAGGTACTGGTAAATCACTGTTAAACAAA  
AAAGATGTAGAAGATACATCCACACGCGAGACCTTCGCTTGTGTTATCAACCAACCTTTTCGAGTTACTTCAACTCAAGGTTTCATACGATGTTTTT  
GTTAAGCTTGTAGGTGGTGGATATGCAGGTCAATCAGGTGCGATCCGTCATGGTATCTCAGTGCACTTTTAGAAGTTGACCCAGATTTCGCGGAT  
TCATTGAAACGCTGCTGGACTTCTTACACGTGACGCAAGCTATGTTGAACGTAACCAACAGGCTTAAAGAAAGCTCGTAAAGCTAGTCAAGTTCTCA  
AAGCT

## SEQ ID 574

MAQAQYAGTGRKNNAVARVRLVPGTGKIITVNNKDVEEYIPHADLRLIINQPPAVTSTEGSYDVFVNVVGGGYGGQSGAIRHGIARALLQVDPDFRD  
SLKRAGLLTRDARMVERKKPGLKKARKASQFSKR

## SEQ ID 575

ATGTCATTACAAATACCAAGCAAAAAAGCCAAAAATGGCTATTTGTATTTTGTCAAATCTATATGGTCAAAGACAGTCAACGTGCAGACCAT  
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CCAACTCATAAAACTTATAACGAGATATTCGAGAAATGGTATCAAGCCTATCAAGATATGGTAGAGCCAACTGCTTACAGTACTCTTGATATG  
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AAGAAATCAGTCTCATGGTTTTAGACATACTCATGCTACCTTGATGATTGAGATTGGAGTTGACCCAGTCAACACAGCAAAAAAGACTGGGGCAT  
GCAAGTAGTCAATGACCTTAGATACTTACAGTCATTGCAACAACACTGGAGAAAGATAGGTGAGTCAACAATTTGCGGACTATCTAAAGCAAAAA

## SEQ ID 576

MSIHKYPSSKAKNGYLYFVKIYIMVKDSQRADHIKRGFRTRKEAKDYEARLIYLKASGKLEEFIKPTHKTYNEIFEKQYQAYQDMVEPTTASRTLDM  
FRLHLPLVMGDLPLISKISPLDCQNFITDKAKTFKNIKQIKSYTGKVFDFAIKMKLLKHNPMMAEIIMPKRKKTRIEYNYWTVQELQEFILAIVLQEEFY  
KHYALFRLLAYSGLRKGELYALKWADIDFQTEFLSVDKSLGRLDGQAIKKGTKNDFSVRKIKLDSETISILQEWKSISSQKEKAQLAVAPLSIEQDF  
LFTYCTRSGSIEPLHADYINNVLRSIRKHGLKKISPHGFRHATHLMIEIGVDPVNTAKRLGHASSQMTLDTYSHSTTTGEDRSVKQFADYLKAK

SEQ ID 577

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ACAGGTAAGAGAGTAAAAACAAGCATCACAGGAAGAACAGAAAGAAAGTTAATCAAAAGCCAGCACGCGCAGTTTGACTTCTATCTAATGGA  
TCTACAATTAAAAAGAAAGTTGTGATTAAACATTAAAGAACTTAGTCATTTATGGCTTGAAACCTATAAGTTAAACAGTAAAGCCTCAAACCTAT  
GATGCTACTGTTTACTAGACTTAATCGACATATTATGCCAACTCTGGGCAATATGAAGGTTGATAAGATAACCGCTAGTGATTTCAATGCTGATT  
AATAGATTATCTAAATATTACGTCAATTATACTGCGGTACGTTTCAGTCATCCGAAAGTTCTCCAACAAGGAGTATTGCTAGGGCTAATAGATTAT  
AACTCAGCAAGAGATATTATCCTTCCAAGGAAGCAGCCAAACGCTAAGAAAAAGTTAAGTTTATTGATCCGCTGATTGAAATCTTTTTTAGAA  
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GCAGGGATTGAACGCTTTTACCTTTACGCTTTTAGACACACTCAGCTAGTTTATTGCTGAACGCTGGTATTAGTTATAGGAAGCTTCAAGTACCGT  
CTAGGACATGCGAATATCAGCATGACTTTGGATACCTATGGCCATCTTTCTAAGGGCAAGAAAAAGAAAGCTGTTTTATATTATGAAAAGGCTATG  
ATAAATTTA

SEQ ID 578

MERFMIMKITEHKKKNGTIVYRASIIYLGIDQMTGKRVKTSITGRTRKEVNQKAKHAQDFLSNGSTIKRKVVIKTFKELSHLWLETYKLTVPKPQY  
DATVTRLNRHIMPTLGNMVKDKITASDIQMLINRLSKYYVNYTAVRSVIRKVLQGGVLLGLIDYNSARDIILPRKQPNAKKKVKFIDPDLKSFLE  
HLETSQHKRYNLYFDAVLYQLLLSTGLRIGACALEWGDIDLENGTIAINKTYNKNLKFSLTAKTQSGNRVISVDKKTLSRLKLYQMRQRLFNVEV  
GARVSEVVFATPRKYFNASVRQSALDTRCKEAGIERFTFHAFRHTASLLNAGISYKELQYRLGHANISMTLDTYGHLSKGKEKEAVLYYEKAM  
NNL

SEQ ID 579

ATGTACAATAGACTAAAAGAACTACGAAAAGACAAAGGGTTAACTCAGGCTGATCTAGCTAAAGTCATCAATACTAATCAATCTCAATATGGAAAA  
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AATTCAAAAATAGCAAATTCACAAATCAAAGATACAAATTTATTAAGTTTTTTTGAACAAGTCAAAAAGGATATGGGTCAAGATTATTTTTCTACT  
CTTGAAACCCCTTGAAAAAGTTAGCAAAAAAATCTTTTCAACTCTCCATACGTCAGACAGCTTGAGGAAATTAAGCAAGAAAAAATCAAGCTTAAC  
CAGAAAATTGATGAACCTTGAAGCAGAGGCTAAAAATCTTCGAAAACTCTTGATAAAGAAGTAAAGAGAGATTAGAAGCTTTTAAAAAAA

SEQ ID 580

MYNRLKELRKDKGLTQADLAKVINTNQSQYKGYENGKTSLSIENSKILADFFGVSIPLYLLGLDNNSKIANSTIKDNLNLSFFEQVKKMDMGQDYFST  
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SEQ ID 581

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ATTGAGAGAGGAGAGGTTGCTTAAATGGCAGATGTTCTTGTGCGATTTTATAAACTCTATAACGTCAGTATTGATTATTTATTAGGGCAACAGAT  
TATCCGTATCGTTTTTCATAATAAA

SEQ ID 582

MYPRIRNLREDNFTQKFVANLLSFHANYAKIERGEVALMADVIVQFYKLYNVSIDYLLGQTDYPYRFHNK

SEQ ID 583

ATGGCTTACACACTAGAAGAACGAGAAACGATTGTCCGTTATGATGAAATGGATAACTGTTGGTATTTTGGAGAGTAATGTTAGGAAACACATTACT  
AAAATCATGAAACTATTGATAGTTGTGAGATTTTAGGTCAAGAGAAAGAAGACGACCGCATTATATGGATTCTAGCTAAATTGACAAATCTTGAT  
GATTATATGGTTTCTCATTGTTGCGAAACGAGTTAAACGTAAGTGAAGAACACGAGAGGAAGCAAGAAAAAGAAATGGCAAGATTACAT  
TCTAAGTCTGAAATA

SEQ ID 584

MAYTLEERETIVRYDEMNCWYFESNVRKHITKIMKTIDSCQILGQEKEDDRIIWIHAKLTNLDYVMVSPFVRKRVKREMTTEQREERKRMARLH  
SKSEI

SEQ ID 585

ATGACAGAAGGATTATACATTACAGCTCCCCAAAGTAAGTAACTGAAAAGAAGTTACTGGCTCGCTATGACACTATGGTTCAAAAAGCAATAGAAAAAGCC  
CTTGAGGACAAAGAGCTATATAAGCCTATGGTTGCTATGGCTGGCTTGTGCGCTTTTTTAGATGCTCTACGACAACATTTGTCAAATGGCAAAAG  
GCAGGCATGCCACATATGTTTATTGACGGAGTGACTCTGTACGATAAGCGCAAGGTGCTCAATGGCTACAACATTTGAAAGA

SEQ ID 586

MTEGFTIQLPKVTBKKLLARYDTMVQKAIKALEDKELYKPMVRMAGLCRFLDVSTTTIVKWQKAGMPHMVIDGVTLYDKRKVAQWLQOQFER

SEQ ID 587

TTGAAAGATAGGAAATTTGGCATGGATAAAAAATAATTTAGAAGACTTGACAGGAAAAAGATACTTAGAAATGGTTTTGGTGGTCTTCGTTTGGAA  
TATGGGACAACTTTCTTGATGTTGGATTGTTCACTTATATTGTGCTGATACTATCAATATTTTTCTTTTATTGTTGAACGTTGGTTTTTGGGAGCT  
TTAACTTTTGTGTTGCATGTTCCCTTGCTTCTACTTTGGGATATGGTGTGGAGAGAGA

SEQ ID 588

MKDRKFMDKNLBDLTGKKILRNGFGGLRLEYGTIFLDVGLFTYIVLILSIFFLVERWFLGALTFVLHVPLLLGIWCGER

SEQ ID 589

ATGATAAAGATTTATTTTGGAAAAGATATAACACTTAACCAAGCTATTAGTCGCGATTTGGATAGCTATCAGATTGACTATCAAGCATTTCTCAAGC  
AAAGATATAGATGCTAAACACTGATGGAATGGCTATTAGGTCGACCGATATATTTGAATTACTAAGCACTAAGATGTTGAAATACAGCTGAAT  
ACACAAATTACCTCAGTCAATTTGTTTCGAAAGATTTTAAAGATGTCAATAGCACCTTGAAGCTTCCATTGTTGTGACAGATGAGGTTATTTAT  
TCGAACATGTCCTCCCTGACTATGTGACAGTACTCTTGCCAAAAGAAATTCGGAAAAATTAAGAAATTCAGCTGATGAGGAAGATGGAGCAGTTAGAT  
GAGGGACGCTCTATCTGGAAGAACTTTGAGTCACTACGTAAGCAATCTGAGCTACGTTGGTTTGAAGTGAATGAGTTACTGTTTGTGATATGTCC  
GACGATTTAGGAGAAATCAAAAAAGCTAAAGACGCTTTCTTTAGCTACAGAAAAATAAACAGGTTCCGCTGATGACATTATCGAAAAAATCCTC  
AAGATATTTTGGTTGACCGAGAAGACTTTTCAAAAAATCTGTGTTGGAT

SEQ ID 590

MIKIYFGKIDITLQAIQSRLDYSYQIDYQAFSSKDIDAKTLMLEWLFIRSTDIFELBSTKMLKYKLNTQITLSQFVRKILKDVNSTLKLPIVVTDEVIY  
SNMSPDYVTVLLPKYRKIKRIQLMRKMEQLDEGRLEFWKNFESLRKQSELRFELNELFADMSDDLGBIKKADRFSSYKKNQVPPDDIIEKIL  
KIFLVDREDFFKSVLD

SEQ ID 591

ATGTGCACATCTGAAGTGCAATTTACTACACCCGTTTTTTTGGCAAGTTTGGCTGGAGCAAAATGAAATGGTCCGACTCCGAAGGGGTGGCTTGGG  
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AAATTAAGAGTCAGCTTAGACAATATCACTATGACAGCCTATATCAATCTAAAGATTTTAGCTATGAAACAACCTCATAGAAACCCATTAGCT



ATTACTGTTCAAACCTGCGATGACTGACATGTTTCGAGCCACCACCTGGGGATGGAATCCACGTTGTGCTCCATATGAATTATGACAAAACAAAAGGA  
CAAGACCGCAAGGCTCGTCCATTTTCGCTTGGAGTTTAAATCCCAATAAACTCCGTTTGTAGTGACAGTGAAATTATAGATACTATTATACCATTTCCTT  
GAAGATATTTCAATATCACGTGCTGATTTAGCTTTTGTATCTATTGAGGTTGATTGTAGTGAGTTTGTGCTCGAAAAAAGGGCAGACCAACCGCA  
ACCAAGGAATTTTCGTTCTAGTACTGGAACGTTAGAAAACAAATATCTAGGTGCTCCACGTTCTGAAAAACAAGTTAGGCTATATAACAAGAAAAAG  
GAACAACTCCAAAATAGGTATGATAAAGATAAAGACTTTGCAAGTCAATTTAAGCACTGGTGGCGCTTGGAAATTTCAATTAAGAAGCCGTTCAATT  
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CACGATAAAAAATATCTGGAAAAAATCCATAGAAAATACAAGAGCAAGATACAAAAAATTTAGAAAATCATCAACATCAGATACTGATTATTTA  
GGTTTGTCTGAAAGACTTGTGTAAGCATGAAAGACCAAGACTAGAAAAATCAGCTCGCTTATTATGGGGGTAGGATAGACAAAAATAGCTTTCAACCC  
TTTTGT

## SEQ ID 592

MCTSEVHLLHPPFGKFGWSKMKMVRRLRRGLGATPPRMSFVYVGLCADKKIGAVRRPPKRKEVCLKLKVSLDNITMTAYIKSKKYLAMKQLIETHLA  
ITVQTAMTDMFRATTGDIHVVLHMNYDKQKQDRKARPPRLEFNPNKLRVLDSEI IDTIIPFLEDISISRADLAFDLFVDCSEFVLEKKGPRPTA  
TKEFRSSTGTLETYKLGAPRSEKQVRLYNKKKEQLONGTDKDKDFASQFKHWWRLFEQLRSRSIDEIFEVIDTIIIFKPFNLKGLSIETQIYLTALI  
HDKNIWKKLHRNTRARYKKILETHQTSDDTYLGLLLDOLLKHERPRLENQLAYYGGRIDKNISFPQPF

## SEQ ID 593

TGTGTTGAAAATTCAGTATTATCAAGGAGTTACGAGGTCAAAAATGAGAATAAAAGATTATGCTGATAGTCTAGGAGTTAGTAGCCAACTCTATCTAT  
AAACGCATACGCTCTCCAAAATATAAGAAAGGTTGAAAGGTCATTTATACCGAGACACCAAAAGGTTGAAAATCTTGATTTGATAGGCATATAA  
ATACCTGAAGATTATCATTTTGAGAATGATGTCATTGAACCTGGAACCAACGCTGGGTGATATTCAAGAAGAAATTCGAGCAAGAAAAGAGGAATG  
CAATATCGGATAGATAGACTAGCTGATAAGTTAACTCCTTTACTTGAGGATAACCAAACTGGGTACAAAAAATATGAGTTTACTCAACTATGTT  
CGGAGCTTGGACGACAGAAGCTATTGCTGATTATTGCTTTAGCTGTCATGTAATCACTTTATTAGTGCAATATGGCTTGGCATCTTT

## SEQ ID 594

MLKIYYQGVTRSKMRIKDYADSLGVSSQSIYKRIRSPKYKERLKGHLRYDNQKVENLDLIGIKILEDDYHFENDVIELEKTLGDIQEEFEQEKKG  
QYRIDRLADKLTPLEDNQNLVQKNYELLNVRSLERQKLLLI IALAVMVTLLVAIWLAI F

## SEQ ID 595

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CAGTCACTAGCTGAAAGCATTGAAGACATAAAGACATTGAACCTATTACAACCTGATAGAAATCAAAGAAAGATTGGTAAACAAAGCTTTGAT  
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AAAGCCGAGTCGCAAGAACCTACCTTTCTAGAGAATTACTCAATCACCGCTAAGACAGCTGAAAAAATATCAAAATTAAGTCAAGAAAACAGAAAA  
TTAAAGCAGCAAAAGTAAATGCTTGATGAACAAAGTGAAGTTCTGTAATTAAGAACTCTCTGTTTGGAAAGAAAAAGCTAAAGAAATTTATGCTTAAA  
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AATAGT

## SEQ ID 596

MSYVVARMAKYKSGQLTAIYNHNERIFKNHNSKEIDVEKSHLNYELTNRDQAQNYHKQIKEHINENRSLTRGVKDAILCNEWIIITSDKTFDFS  
EKQTRREFFETAKDYFAEKYGDANIAIYARVHLDSTPHMHLGIVPMKNGKLSKALFGNKEKLVAIQDELPKYLNHEGFNLQRGEIGSKKKHLETA  
FKEKQRLLDNADRKLADKHEBKALDDKISNVNDTIADKESRLKELEAKENDAVGDLKQVELEKQSLAESIEDIKDIELQLDRIQKEDLVKQSF  
GKLMKDKEYNRLFQASKHASSNAELKRDVLVKAQSQNNHLSRELLNHRKTAEKNIKLSQENRKLKDKVKMLDEQVKILNKSLSVWKEKAKEFMPK  
QVYRETLIIINTLNPGLAKTAIRQVKMVDNS

## SEQ ID 597

ATGTTTTTAAACACCAAGATGTGAAACAAAAAATTTGGAGAATGCGTAAGGTCAAAAAGTCTTTGTTAGTTTCATGTATGCTTTTAAACAGTGGGC  
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TCTGATTCGGAGAGGTTAGATGAATCGTCTTTATTGCAAGAAAGAACTTATCAGTAGATTCAATTTAAATTAGAAAAATTTAAATGGATGGGAAGCT  
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ACAACACGTGCGCAATGTTGATAAAGAGCACTAAAGCTTAAGAGAAACCTTGCTAAGGCTTAAAGATGCTGATGCTTTAGACAAAGCGTCGGTGAC  
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ATACAGCTGTTGATGATGCTCAACAGCTGATGCTTCAATGATGCTCTTGGTAAGGTTATTGAAACATCAACAAACCAATCAACATGGCGAT  
GGCGTTGATGTTCTGTAAGCGACTGCCAAAGCGATCTTGAAAAAGAAAGCTGCTAAAGTGAAGCTCTTATGCTAAGGATCCGACCTTAACCTAA  
GCTGATAAAGACAAACCAACAGCAGCGGTTGACGCGACTAAGAATACAGCAATTGACGCGTTGATAAAGCGCACAACTGAAGGCATTTAAACAA  
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GCAAAATCATGCTGACGCAACCACTTCCAAATCAGGTGATGCAAACTCAATTGTTCTTGTGGCTTAGAGTTATGTCTCTTCTTTAGGTATG  
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SEQ ID 598

MFLKHQDVQKQKNWRMRKVKKVVFSSCMLLTVLGLVAVPTGFSQSNQVMVKAAEVPAATDLRSQASDSERVDSSLLQKENLVSDFSFKLENLNGWEA  
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VESNNLKGKELVIRVDNKVNSTKHDWLPDISDGTHTVDFTGLDKLPLSVAFRFSQRTSNVYFESSNINIKNIPSPASVPAIPSKVLEGSTVLSGTAI  
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RLDEGLKALKKAADSLLETKVTEBAFVDKKNPDSIPNQHKAGTADQARKQALDSLKEVQKEBESINDNDTTLTDEKAAKKKPVNDAYVAKQTAM  
EANSYEDLTTIKDEFLSNLPHKQGTPLKDQQSDAIAELEKKQQEIEKAIEGDKTLPRDEKEKQIADSKERLKSDTQKVKDAKNADAIKKAFEBEGKV  
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NEAKDADALDKAYGEGVTDIKNQHKSGDPVDARRGLHNKSIDEVAQATKDAITADTTLTEAEKETQRGNVDEKATKAKEELAKAKDADALDKAYGD  
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EARKDLAKKDLAEAAAKTAKALIIEDKTLTDDQRKEQLLGVDTYAKGIBENIDAAKDAAGVDKAYSQDGVRI LAQYKEGQNLNDRNAKEFFLLKEA  
DKVTLLINDDPTLTHTDQKVDQINKVQEAKLDAIKSVDDAQFADAINDALGKQIEININNQYQHGQDGVDRKATAKGDLKEAKVKALIAKPTLTQT  
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NQELGKGITAINKAYRPGEGVEAHKEAAKANLEKVAKETKALISGDRYLSSTEKAVQKQAVBQALAKALGGVBAAKTVEAVKLAENLGTVAIRSAV  
VAGLAKDTPQSAALNEAKQAAIEALKQAAETLAKITTDKALTEAQKAEQSENVSALAKTAIATVRSQSIASVKEAKDKGITAIRAAYVPNKAV  
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SEO ID 599

ATGACAGATAAAAAAATTGTTTATTACTTTGACCATGACTTATCAAAAAAGATATGGGAGGAGTAGGACCTACCTACACCGGTAAAAATCTTTTATTCCTACTTTGGTGACATATTCTTATGTGGCAGAAGACAATTTAGACATTGATACGTCAATTGTTTGAAGTCCCAGAAATCAATGATTTTACAATAATGGTCTAGAGCTTTATCGTATAAAAAATGAATAGCTAATATACAATACAGATTTGGATATGAGGTTAATCCAAAAGATAGTACAAAGATGCTGATAGGTATTTTGGCAACTGATGAAGAAGATTGTTAAGGGATATAGAAAATTTATTGCTGATATTTCCAATCTTGACACAGTTACGCAATCTATCATCGACTAATTAAAAACATGACAGCAATGCTACCGATTGAACAAATTAATGTTTATAAAGCGCTTGCAAAAGGTAATAAAAAAG

SEO ID 600

MTDKKIYVYFDHLSKKDMGGVGPTYTGKNLLFLLWWTYSYVAEDNLDIDTSLFEVPEFNDFYNNGLLEYRIKNELANYNIRFGYEVNPKDSTKML  
IGILPTDEEDYVKGYRNFADISNPDPTRYAIYHRLIKTMDTMLPIEQINVYKSLAKGNKK

SEO ID 601

TTGGACTATAAGAAATATCAGATTATCTATGCTCCTGATGTTTTAGAGAAGTTAAAGGAAATTCGTGATTATATTTCTCAAACATATTCCTCGACA  
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AAAATCAGTAAGTACCACAGCACTAGAGGTTATACCTTAAGTAAAGATTATATTGTCTTATACCATATCGAGGAGGAAGAGAATAGGGTCGTATT  
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SEO ID 602

MDYKKYQIIYAPDVLEKLKEIRDYISQNYSSSTSGQHKEQIISDIEKLEVPFVGVGDADEKYGSKISKYHSTRGYTLISKDYIVLVYHIEEENRVVI  
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SEO ID 603

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AAATCATCCATTATCAGCAGCTAAAGGTTATACCTTAAGTAAAGATTATATTGTCTATACCATATCGAGGGGGAAGAAAAAGGATCGTTATT  
GATTACTTGCTTCTACTCAAAGCGACTATATAAAGTTATTCAA

SEQ ID 604

LDYKYYQIIYAPDVLEKLKEIRDYISQNYSSSTSGQRKMEQIISDIEKLEVPFVGFDADEKYGSKIHYHSTKGYTSLSKDYIVLYHIEGEENRIVI  
DYLPTQSDYIKLFPK

SEQ ID 605

ATGGTTACAGCAGAAAAAATAGAGCTGTACATTCCAAGCTAACAAAGAATTGGTAAGCGAAGCAATGACAGTATTAAACAAGAAAAATTTAACC  
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AAGCAATTTCAAGCTGAAATCAACAAAAATATTGAAGATGTTCTGTCAGGGGAAATTTTATACCTCTGAAGAAGTGAGGCTGAACTTGGACTA

SEQ ID 606

MVTAEKNRAVTFQANKELVSEAMTVLNKKNLTLSSALRLFLQNVVVTNEVDLLTEEBELEKEKLFKQFQAEINKNIEDVRQGFYTSSEVRSELGL

SEQ ID 607

ATGACTACAGTAAAAAAGCAGAGCGGTTACCTTTCAAGCTAATAAAGAATTGGTAAGCGAAGCAATGACAGTATTAAACAAGAAAAATTTAACC  
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SEQ ID 608

MTTVKKNRAVTFQANKELVSEAMTVLNKKNLTLSSALRLFLQNVVVTNEVDLLTEEBELEKEKLFKQFQAEINKNIEDVRQGFYTSSEVRSELGL

SEQ ID 609

ATGATGTCAAAATTAACCTAACACCTGAAGAACTCCGTAATTTTTCAGCACAAAAATATACAACAGGATCACAATCAATTACAGATGTGTTAACAGTT  
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CAATTTGCACAATTATTAGAAGATATAAATCAACAATTATTGAAAGTTGCGGATGTTGTGCAACAAACAGACTCAGATATTGCCTCACAATTAAT  
AAA

SEQ ID 610

MMSQIKLTPPEELRISAQKYTTGSQSITDVLTVLTQEQVAIDENWDGTAFDSEFAQFNELSPKITQFAQLLEDINQQLKVADVVEQTDSDIASQIN  
K

SEQ ID 611

ATGGTATTTTACATATACCGAAGAAGAACTTCGTGAATTCATATTTGGAGATAATGTATATTTCAGTTAACCCCGATTATGCAGAAAAAATCATTTCA  
ACTGTCATAACGGATTATACCCAGAAAGATAACGAAACAAATATTATTACAACAGAGATAGAAAAAATTTAAGGTATTAAAAACTTCTCCTGAC  
GATATGCTCGGCTATCAGGGTATGGCAGTTGCACCAATATCAAGGGTAAAGTAGATTATAACAGTGTTCAGTTATATCCGCCGCAACGGATTCA  
AGTAATTATAAGATTTAATTTGGCGCAGTTTCATCTGCTCAACCACATCAAAGTTTCGACTCAGTTAAATCAGCTGATAAATTTTAAAGACGTA  
CAGTCACATGACAAATGGACTGTGACTCAGCTTTTCAGGCTATTCTCAATCTGCATATATGTTAAATTAGGTGCTCAATATCATATCCCGACTACA  
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SEQ ID 612

MVFTYTEKELREFNIGDNVYSVNPDYAEKNHSTVITDLPQKDNENIITTEDRKKFKVLKTSPPDDMSGYQGMVAVPIIKGKVDYNSVAVISAATDS  
SNYKDLIGAVSSAQPHQSSTQLKSADKFLKDVQSHDKWTVTQLSGYSQAYMLKLAGQYHIPTTVFNGWFRYSLNEDEKNSWLSILNII

SEQ ID 613

ATGGCTAAGCATCCTGAATATTTTGTGAATTTTCGACATAAAGAGGATAATGTAACTTGGTGGAACGATTTTAAATAAAGTAGATGATAAAGATTAT  
GGTACCGTGAAATGGGTAAATGGTAAAGTCATAAAATAGAGAGTTGGAAATTTACTGATGATGGTAAGTTAAAGATGAAAAAGGTAAACATCGTA  
AATCCTAAGTCACCGAGCTGTTTCACTGCTGTTCTTTATGAAGAAGTTCAATTTCAAAAAGCTAAAGCTAAATTAATAAATCTGGAGGCAAACTTAGT  
CATAGTGAAAAAGTATATTAGATTCTGAACAGGCTATATTTATTTGCTAACGGTTTAAACCACGGCATCTCAAACAGCTTCTGATGATATCAAGAAG  
AATGCTGAATTAGTTAAAGAAAAAGCATCAGAATATTGCAAAAATAAAGTATGCTCCTCGGTATAACAGATTAAAGTCCGGAAGAATTAGCT  
GATACATATAGTGAGGCGGAGTTAGAGAGGACACCATAGTAACCAATTTGAAACTTTCTTTGATGAAAAAGTTACTAATGCACAAGAGATTACA  
ACTTCATATATTAATCTTCAAAAACAAATTGAATCTGGTGTCCAAAAATTTGCTAGAAGAGGACTCCAAATTAGCAGGAGAATTTAAGGAATGGTCA  
CAGTAC

SEQ ID 614

MAKHPEYFVFNFRHKEDNVTWNDFNKLDDKDYGTVKWVNGKSHKIESWKFTDDGKLKDEKGNIVNPKSPAVQSVLYEEVHFQKAKAKLKSXGGLS  
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TSYINLQKQIESGVQKLLBEDSKLAGEFKWSQY

SEQ ID 615

ATGGTCACAGTACTAGATCAAAATGAAACAAAATTAATAGTCTAAAAATAAACCTAGGGAAATTTGGAAGATAATTATCATCGCGAAAAATATGGAG  
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AATGATTACAGATGGTTGACTTTTATGAGTTTAAATCGAATAATTGAAAGTTATCAAAATGGAATTAATTGATGAATATGAAAACTATAAACAGACT  
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SEQ ID 616

MVTVLDQENKINSKINLKGLEDNYHRENMEIEDKLYSLEDKKELELYLQEVYEETSHLLRQNDSDGSTFMSLNRIIESYQMELEIDYENYKQT  
IIVQEENSRTQFLKDRVKLENDISSLEGRKYY

SEQ ID 617

ATGAGTTTATAGGCGCTGTATTGAAAGGAACCAAGAAGACAAAGAAATCAAAAAGCAAATTCAAAGAGCTTTAGTAAGGATGTCTATGCCCTT  
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AATCAATAGATTGAGGACTTGTAGGACAATTTGGGGAAAAAGTAAAGGCACAGGTAGATTTAATAAAGGTAGTTATGATGATTTA

SEQ ID 618

MSLIGAVLKGTKEDKEFKQIQRALVRIVYAPEIVEEADSIKMTYSDKIDNVSETAKSSIKTIANQIDSLVGQFGEKVKAQVDLNKGSYDDL

SEQ ID 619

ATGAAGGATAACAAAGTTTATTATTTTACATTTTGGTAAAGCAATAGATAAAAAATGAAGCTAAAAATGATAAGTATCTCAATCAAATTATAAATAAT

SEQ ID 620

MKDNKVYYLHFGKAIDKNEAKNDKYLNQIINN

SEQ ID 621

ATGATGGAGGAATTTGTATGGTAAGTACTCAATATATGAAAGTAACCTTACGAGAAAAATTCAGATAAAATTAACATATGTTGATTTAGAAGAA  
CTTGTGATA

SEQ ID 622

MMEEFCMVSTQYMKVTLREKFPDKLTYVDLEELVI

SEQ ID 623

GTGAATGTGACTCCTCAAGAAAAATGTCGGAAGAAGACCTTTGCTTTTTGTCGGATTACCTCTTTCAAAGGATAGTTGGGAAATTAGTGACTATA  
TTT

SEQ ID 624

MNVTPQEKCRKKTFAFCRITSFKRIVGKLVITF

SEQ ID 625

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TCAAGAAAAATGTCGGAAGAAGACCTTTGCTTTTTGTCGGATTACCTCTTTCAAAGGATAGTTGGGAAATTAGTGACTATATTTTGATTGGAAAT  
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TTAAATAATGAGCGGAATGCTTATCACCCTATTATTTTACTCTATGAAAAGGATTCTTGCCTATGCTAAAGGGGATAGTCGAGGAATACAAAGC  
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SEQ ID 626

MFKYVP I FREFRLNRQFSCLKQVASNELSVS QLSRFERGESDLSLTKFLGALEAIDL SISEFMDRVNKKYQSDQISLMSQMAQYHYQRDVAGLEKMI  
SVEEGKLKDDSSDIRCLNIVLFRGMICECDSSRKMSSEDL CFLSDYLFQKDSWEISDYILIGNLYRYNTRHICQLVKEVINQKEYYRDIYTNRN  
VVEATLLNVETLIBERRALEBATFFLEKVEALLNNERNAYHRIILLYEKGF LAYAKGDSRGIQSMKQAI PCFQAIGSKHHVENFQEHFNVRRL

SEQ ID 627

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CTGTCCAAGTCACAAATTTCAAGATTTGAACGAGGGGAATCAGAAATCAGCTGCAGTCGCTTAATCTTTTGATAAACTGAATATTACGATT  
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CAAGAAGAATTGACTCGCCTCACAGATTATTTATTTAAAGTGAACAGTGGGGATATTATGAAATCATTCTTGGGGAATTGCTCGCGCTTCATG  
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CAGATTTTAAAGTATCTTGGAGAGGACTCATTGTATTATAGTTATAAGGAACATTACCGTCAAATAGTGCTGGGAGGTAAAGGGGATGAGGACTGG  
TCTGAGGCAGATTTA

SEQ ID 628

VKVGMEKELGKTLRLRKQKQVSISFLADEYLSKSQISRFERGESEITCSRLNLLDKLNIITIDFVSAHSKTHTHFFLLS QARKCYAEKNVVK  
LTKLLKDYAHKDYERTMIKAILFSIDSSIAPSQEELRLTDYLFKVEQWGYEYIILGNCSRFMNYNTLFLLTKEMVASFAYSEQNKTNKMVLVQL  
SINCLIIISIDHSCFEHSRYLINKIDLLRLDLNFBYKTVFLYVHGYYKLGQEEMSGEEDMRQALQIFKYLGEDSLYYSYKEHYRQIVLGGKGDEDW  
SEADL

SEQ ID 629

ATGAATATTAAATGGTATAAAATTACTATCTAGTCGAGCAGTCAGTAAACTTGGTGATGTGTTTTATGATTATGGAATAAGTACTTGGATTGCTTCG  
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CCTATAGGAACACTATTTATGACTATCTTTTCATTTGCCTTATCAAATGTTAGCTTTATTGTTATAGGATGTGCCATTGCTATATTGGGAGGATTA  
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SEQ ID 630

MNINGIKLLSSRAVSKLGDVFDYDGNSTWIASMGGLGQKILGIYQIVELLVSVILNPFPGALADRFQRRKILLITDAICAIMCFLLSFIGDDKVMV  
YGLIVANAILAVSNAFSSPAYKSYIPEIVDKADIITYNANLETTVQIISVSSPVLGFLIFNNFIRITLIVDAITFLISFLFYAIKVERVQLSKQ  
EKVAIKNILADIADGFTYIKKEKIMFLLIIAALLNTFLAMFNLLPFTNSLLKTSGAYATILSISAIGSIIGALIARIKSSINSMLSMVLVSSSL  
GVIVMGFPLFELPIWIPYSGSFLFNLLTMFNIHFSSQVQIRVDEAYMGRVMSTIFTIAIMFPIGTLFMTIFSFALSNVSFIVIGCAIAILGGL  
GFSYSKKQF

SEQ ID 631

ATGAACAATAGGAAAAAAATATTCAATATTTAGTGTATAGTAAAGTTATATATCGAATTGGCGATGTTATGTTGATTTTGCTAACAACTATTTT  
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ATTGCAGACAGTTTCAAGCGGAAAAAAATTTATTACTACAAATATCTTATGTGGCACAGCTTGCTTAGTACTCTCGTTCCTAACAAAAGAGCAA  
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SEQ ID 632

MNNRKNKIQYLVYSKVIYRIGDVMFDFANNTFLAGLNPASLSLVAVYQSLESVIGVLFNLFGGVIADSFKRKKI IITNLCGTACLVLSTLKEQ  
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VIKEKVTIREIFNDLKI GFKYVYSHKSIPIITVLSALVNFFLAAYNLLLPYSNQMFGBISTGLYGTFLTAEGAIGGFIGAILSGFVNKELSSMRLLIL  
FLSLSGMLMLLAPPFYIMFHNAILALSALFSLFLSIFNIQFSLVQKQVDNDFLGRVFGIIFTITILFMPIGTGFFSVALNPNNSNFLFIIGSC  
ITLTLVFRILFKYKINIR

SEQ ID 633

ATGGGAATCGCAATGTCATCCAAACCATTCCTTCTTTAGCTATGATCTCTATCATTATGTTAGGCTTAGGGCTAGGTATTAAACAGTAGTTGCA  
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GGCATGACTAATAGCGGTCAACGTTTATTATGTTAGATTACCACTCATATTTCGGTTATCATGGCTGGACTTAGAAATGCCCTTGTGTAGCAATT  
GGTATACAGCCATTGGTGCTTTCGTGGGGGAGGCGGACTTGGAGATATCATCTAAGAGGAACCTAATGCAACAAATGCTGGTGCTATTATCTTA  
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SEQ ID 634

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SEQ ID 635

ATGCTTTTGTGGTCAATTTATTTGGAGGTGATGAGCATGCCTAGTTTGTGTTGTAACCTTTCCAAAACCGTTTTAATGAATGGCTGGCGGCTCTGGGG  
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ATTATGTTACAGGTAACAGGCTGTTTTTCAAACCATTCCTCCATCGGCTTTGGCTGGCTCTTTTCATCCCTTTATATGGGAATTGGAACGTTGCCTGCA  
GTGACAGCTTTAGTTATCTATGCGAATTTTCCGATTTTACAAAACCACTACAGGATTAAATGGTATTTAGACCAAGTCTCGTGGAGAGCGGAATA  
GCTTTTGGGATGACCAAATGGGAGCGATTGAAAAATTGAGATTCCAATTGCCATGCCGTGTTATTATGTCAAGTGTGCGGACGTCAGCAGTCATG  
ATTATCGGCACAGCTACTTTAGCTTCCTTGATAGGAGCCCGTGGACTTGGCTCTTTTCATCTTATTAGGGAGTTGATCGTAATAATGCTAACCTGATT  
CTGATAGGGGCTATTTCTTCAGCTCTGCTAGCTATTATTTTCAATAGTTTGTTCACAGTACCTTGAGAAAGGCTCTCTGCGCGGATTATGATTAGT  
TTTGAATTACCTTACTTTCGACTCTGAGACTGTATACTCTTATGGCGCTTAGTCAGTTTCAAAGGAAAAGATACAGTGTTATTTCGCGGTAAA  
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ACTAGCTCTTATATGAAGCCCTTAAATCTGGAGATATTGATATGTATCCTGAAATTTACAGGAACCATAACATCAAGTCTTTTACCGGCACAAACCA  
CCTTTGTCTAATGACCTTAAGCAGGCTATGAGGATGCTAAAAAAGGCATTGCTAAGCAAGATAAACTGACCCCTTCTCAAGCCATTTGCTTACCAA  
AATACGTATGCTGTGCTATGCGCAAAAAATTTGGCTAAGGAATCATAGATTGAACCAATTTCTGATTTAAAAGCGCATGCTGATCTTTAAAGGCC  
GGTTTTACTTTGGAATTTAAGGACAGAGCAGATGGCTATAAGGGAATGCAATCTCAATATGGATTACAGCTATCTGTGGCGACGATGGAGCGAGCT  
CTTCGTATCAAGCAATTCATCAGGAGATATCCAAGTAACAGATGCTTACTCTACGGATGCTGAAATTACGAAATACCATTGAAAGTTTTAAAG  
GATGATAAACAGTTGTTTCCACTTATCAGGGAGCTCCTTTGATGAAAACCTTCCTTATTAAACAAACATCCAGAATTTAAAGGCCATTCTTAATCAA  
TTAGCGGGAAAAAATTAAGGAAAAGAGATGCAGGACATGAACTACGAGGTATCTGTTAAAGGAGCAGATGCTAATAAGGTGCTCGAGATTATCTG  
TTGAAAACAGGCTTAATCCAGAAA

SEQ ID 636

MLLWSIYLEVMSMPSLFVTFQNRPEWFLAALGHEHLQISLLSLMIALLIGVPLAALLSRSKRWSDIMLQVTGVFQTPISLALLGLFIPLMGIGITLPA  
VTALVYIAFPILQONTITGLNGIDPSLEAGIAFTMLTKWERLKTFTBIPIAMPVINSVGTSAVMIIGATLASLIGAGGLGSGFILLIGDRNNANLI  
LIGATISSALLAIIFNSLLQYLEKASLRIRIMISFGITTLALLASATYPMALSGFSKGGKDDTVIAGKLGAEPDILINLYBELIEDQSDISVELSKNSFGK  
TSFLYEALKSGSDIMYPEFTGTITSSLLRDKPLSDNPQKQVDEADAKKGIKQDKILTLLKPFAYQNTYAVAMPEKLAKEYQIETISDLKAHADTLKA  
GFTLEFKDRADGQYKGMQSGYGLQLSVATMEPALRYQAQSGDIQVTDAYSDMARITKYHLKVLKDDKQLFFPYQGAPLMKTSLTKHPKELKGIILNQ  
LAGKITTEKEMQDMNYEVSVKGADANKVARDYLLDKTLGLIQK

SEQ ID 637

ATGCTTAAAAAATCGCACTTTTACAGATATTTACACTTTGCTTAGCCCTCTTAACGATTCTGGTTGTCAATTAAACCGATACTAAAAAGTCTGGT  
CATACACCAATTAAGGTTGCTGCCCAAGTCTACAGAGTCTAGTATATAGGCAAAATATATCACCGAATTAAATTCATCAGGAATTAGGATACAAC  
ACAACTTTAAAGAACAATCTTGGTTCTCTACGGTTACTCACAAGCTTTGCTCCGTGGTGATGCTGCACACGTTATCGCCACAGTTATCAGGAACA  
GACATCACAGGGACTCTTGGTTTAAAGCTGTTTAAAGACCTTAAAGAAGCTTCTAAGATTGTAAGAACTGAATTCAAAAACGCTCAACATCAACT  
TGGTATCCTACTTAATGGTTTCTTGATACCTTATGCAATTCATGGTTACTAAGAGAGTTTGCAGACAGAATAAAATCCTAAGATCTCTGATCTTAAA  
AAATATCAACAACATGAAGGGCAGGGGTGTGATGCTTCATGGATGAATCGCGAGGGAGATGGATACACTGATTTCCGTAAACACATACGGTTTGTAA  
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GATCCTAAACTAAAAAAATCACTCCATCGACTCGATGGTAAAAATCAATTTAAAAACGATCAAAACCTTAAATATATGGTAGATGATAAACTTTTA  
GAACCTTCAGTTGTGGCAAAACATTTTAAAAAAAACCATTTATTTAGRRGARRRWWAAWAAWKAAMMAAWKAAWMYTTCMAMMATTTWTY  
YWMYMYTYTCMMAMWWAWKGKWRK

SEO ID 638

MLKKSHFLQIFTLCLALLTISGCQLDLDTKKSGHTTIKVAQSSSTESSIMANIITELIHHELGYNTTLISNLGSSTVTHQALLRGDADIAATRYTGT  
DITGTLGLKAVKDPEKASKIVKTEFQKRYNQWPTYGYGFSDTYAFMVTKEFARQNKITKISDLKKLSTTMKAGVDSSWMNREGDGYTDFAKTYGFE  
FSHIYPMQIGLVYDAVESNKMQSVLGYSTDGRISSYDLEILRDDKKFFPPYEASMVVNNSI IKDKPKLKKLLHRLDGKINLKTMQNLNVMVDDKLL  
EPSVVAQFLEKNHYFRXXXXXXXXXXFXFXXXXXXXXXXX

SEO ID 639

ATGGTCAATTTCCTTATCACAGTATGGCATGCAAAATATTAGTAAAAACATGGGAACAAGTCTATATCTCATTCTTTGCTATAGCACTTGGGATTGCA  
ATGCTTGTTCCATTGGGTGTGGTCTTAACACGCTTTTCCCAAAGTAGCCAAAATTATCATCTGCTATAGCTAGCATGTTACAAACTATACCAGTTTA  
GCCCTTTAGCTCTTAATGATTCCATTGTTTGGAAATTTGGAAATCCCAAGTATCGTGTGCTTTATTTATTTATTCCTGCTCCCTATACTAAGGAAT  
ACTTATATAGGTATGAATAATGTCAATCCAACACTTAAAGATTGTGCTAAAGGATGGGAATGAAACCTATTCAATCTATATTTCAAGTTAGATT  
CCTTTAGCTACTCCAATTATTATGGCTGGTATTCGCTTGCTACTATTTATGTTATATGCTTGGGCTACATTGCTCTTATATATAGGTGCAGGTGGA  
CTTGGTGATCTCATTTTGTAGCGGGTTAAATCTTTTCAGTCCAAATTAATCTTAGGGGGCACAATTCTGTTTATTATCTGTCACTTATTATAGAT  
TATCTTTTAGGATTACTGGAAACAGCTCTAACGCCCCAGCAACAAGAAGGGAGGCT

SEO ID 640

MNVFLSQYGMQILVKTWEQVYISFFAIALGIAIAVPLGVLTFRPKVAKIIIAIASMLQTIPSLALLALMIPFPGIGKIPAIVALFIYSLPLILRN  
 TYIGMNNVNPTLKDKCAKGMKPIQSIQVELPLATPIIMAGIRLSTIYVIAWATLASYGAGGLDLIFSGNLNFQSKLILGGTIPVILSLIID  
 YLLGLLETALTPRTTREA

SEO ID 641

ATGGGCCAAGAACCTTATCATCGAATATCAAATATCAATAAAGTGATGGGGAAAATGTTGCGGTTGAAGACATTAACTTTAAAAATTACCTTGGT  
GATTTTGTGTTGTTTCATCGGTACGAGTGGATCAGGTAAAACAACATTATATGCGTATGGTTAACCATATGTTAAAAACCAACAAATGGTACTCTATTA  
TTTAAGGGAAAAGATATTCTACTATTAAACCCCATTTGAATTAAAGCGCAGAAATGGATATGTTATCCAAAACATTGGTTTAATGCCTCATATGACC  
ATTTACGAAAAATATAGTTCTTGTAACAAAATATTGAAATGGTCAGAAGAAGCTAAAAGAGCTAAAGCAAGGGAACCTTATTAATAATTAGTTGAATTA  
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ATTTTAAATGATGAGCCCTTTGGAGCTCTGGATCCCTATCTAGAGAAGGTATTCAAGACTTAGTCAGTCTCTTCAGGAAGAAATGGGGAAAACCT  
ATCATCTTAGTTACTCATGATATGGATGAAGCCCTCAAGTTAGCAACAAAAATTATTGTTATGGACAATGGTAAAAATGGTCCAAGAAGGGACACCC  
AATGATCTCTTACATCATCTGTACTAGTTTCGTTGAACAAATGATTGGAGAAGAGCGTCTCCTTCATGCGCAGGCTGATATTACTCCTGTTAAA  
CAGATAATGTTAAATAATCCTGTTTCAATAACTGCTGAAAAAACCTAACTGAAGCTATTACACTAATGCGCCAAAAACGCGTTGACTCACTTCTA  
GTAACCGGATAACGGTAAATTAATTGGTTTTATTGACCTTAGAATCTCAAGCAGTAAATAAAGAAAGATCGACTTGTTTTCTGATATCTTAAACAT  
ACTGATTTTATGTTTATGGAAGACGACTTACTTAGAATACTGCTGAGCGTATTTTAAAACTGGGTTTAAAAATACGCTCCAGTTGTTGACCATGAG  
AATAACTTAAAGGACATGTTACTCGTGCATCCCTAGTTGATATGTTATACGATATTATTGGGGGGTCACTAGAAACGGAGGATCAA



## SEQ ID 642

MGQEPiIEYQNINKVYGENVAVEDINLKIYPGDFVCFIGTSGSGKTTLMRMVNHMLKPTNGTLLFKGKDISTINPIELRRRIGYVIONIGLMPHMT  
IYENIVLVPLKLLKWSSEAKRAKARELIKLVLPBYLDRYPSELSSGGQQQRIGVIRALAADQDIILMDEPFGALDPITREGIQDLVKSLEQEMGKT  
IILVTHDMDEALKLATKIIVMDNGKMQVEGTPNDLLHHPATSFVEQMIGEERLLHAQADITPVKQIMLNNPVSI TAEKTLTEATILMRQKRVDLSLL  
VTDNGKLGIFIDLESLSSKYKKDRLVSDILKHTDFYVMEDDLRLNRTAERILKLGLKYAPVVDHENNLKGI VTRASLVDMLYDI I WGDTE TEDQ

## SEQ ID 643

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GTTGGCCCCAGCGGATCGGGCAAGACCACACTTTTAAAAATGATTAATTGCCTTATTGAACCAAGCTCTGGAGATATTTTACTAAATAACGTCCCA  
CAGACAGAGTTAGATTTACGTGAGATGAGGCTATCTATTGGATACGTATTGCAGCAAATTGCTCTGTTCCCAATCTCACAGTAGCTGAAAATATT  
GCGATTATCCCTGAGATGAAGCAATGGTCACTGAAGAAATTAGACAAAAAAGTGAAGAATTATTGGATAAGGTGGGCTTACCTGCTAAAGATTAT  
CTTGATCGTTACCCAAGTGATTTATCGGGAGGTGAACAGCAACGTATTGGTATTGTACGTGCTATCATTCTCATCTCTAAAATCTATTGATGGAT  
GAACCATTTCAGCCTTAGATCCTATTTCACGTAAACAATTGCAAGAGTTAATGTTGAGTCTTCACAAGGAATTTGACATGACGATTGTATTGTG  
ACACATGATATTGATGAGGCCATTAAATTAGGAGACCGCTAGCTATTTTAAATGAGGGAGAAATTTGTGCAACTGGATCGCCAGAAATGATTAAAG  
ACCCACCCTGCTAATGCTTTTGTGGTCAATTTATTGGAGGTGATGAGCATGCC

## SEQ ID 644

MIRFNNVSKTFGQTKVLQEQTFQINDREFFVLVGPSSGSKTLLKMINCLIEPSSGDILLNNVPQTELDLREMRLSIGYVLQQIALFPNLTV AENI  
AIIPEMKQWSAEEIRQKTEELLDKVGLPADYLDYPSDLSGGGQQRIGIVRAIISHPKILLMDEPFSALDPISRKQLQELMLSLHKEFDMTIVFV  
THDIDEAIKLGDRVAILNEGEIVQLDRPEMIKTHPANAFVNNLFGGDEHA

## SEQ ID 645

TTGATGGGCACGAGTGGACTCGAACCACCGACCTCACGCTTATCAGGCGTGCGCTCTAACCACCTGAGCTACGCGCCCAAGCTATTGCTTGGTTTT  
TACTTTCTTATAAG

## SEQ ID 646

MMGTSGLEPPTSRLSGVRNHL SYAPKLLGLGFYFLIK

## SEQ ID 647

TTGATATATAAAATTTATATTCTAAGAAAAGAGAACATGATGAGAAAATATATAAAATGGTTAATTTCCATATCAATTTTTGGGATGATACTTGGA  
GGCTGTCAAATGAATAGTGAACATAAAATTCAGTCAAACGAAGTAAAAATAGCAAGCAATCAGAAGTGAAGAAAGATAAAAAATGACAAAAAA  
GAACAATTAGCCTATCTCAAAGAGCATGAGCAAGAAATCATAGATTATGTAAATACATAACAACCAATTGAGTCCGTTCAATTCGATTGGTCA  
AGTGTAAGTAGAACAAGCGGGAATGGAACCTCCACAAGGGGGTGATTATAATCTTTCACTGAGAGGAAAGTTTAAATCATCTACAAAATTCAAA  
TTAATAGTTGATTTTATTATTAGCTCATAAAATGATATCCAAATATCAATCAATGGGAATGCTAAATAAGCCGTATATACATAAAATGGGTATT  
TGGCACCATTATGAA

## SEQ ID 648

MIYKIYILRKENMMRKYIKWLIPISIFGMILGGCQMNSEHKIQSNEVKNSKQSEVKKDKKMTKKEQLAYLKEHEQEIIDYVKLHNNQIESVQFDWS  
SVKVEQSGNGTPQGGDYNLSLRGKFNHLQNSKLI VDFYLAHKNDIPNISKSMGLNKPYPHKNIGIWHIYE

## SEQ ID 649

TTGAGTAATGGAACTTAGATAATTTTGATAACTTACATAGCTCTTTAGCAGAAAGTGCATATAATAGTCGACCTAATTCATTTCTGAATTATTT  
GAGACTGACTCAGTAACGAAAGTAAAAATTTCTCAACCCTCAGAAAGATAACAAAGGTCAAATCACACAGGGTGGGCACTAACCTCCCCAATGATGGT  
ATTGTCTACTCTGCAACAGATAAGTCTTAAAAATCTATTGATGAAAATGTAAGGTCTCTATTCCAGATGTCAATGGAGGCTATCACACTGAGCAT  
TATGTTACTCATTCTTATCAAAAAGGTGTGCTTACTGACGATAAGGCAGGTTTTTAATGCTTACTACCTGTGAGATACTGAAAAAATAGATAGCACT  
ACAAAGCACACTTATCTAGCCATTCTGTGTAGTGTGAGGATTGTTCTAGATACACTAAACGATTGGGTTAGTAACAATGCAATGTTTGTCTGTCTCT  
AACAAGTATATTCCACAAGCGAAATTTGGCTAATAAGGCTATGAAAGAAAAATGCGGAGCTAAAAGGAAAAGCGCCTGGAGCTATTATAGATGTT  
ACTGGTCACTCACTCGGTACGATTGTATCTTCTCAAGCAGTTGTTAATCTTAGCTATGCAGAATTGGAGAATGTTGGTCAAGTAGTCTTTTCGAT  
GGCCCTGATGTATCAAGAAGCTTGGAATAAATGGAAGGCATTCTCTAAAAAATCCAAGAAGCTGGGAAGCATGTTACCTACTATGTCAATCCC  
TTTGATATAGTTAGTATGCTTAATCGTGAAAGCCA

## SEQ ID 650

MSNNWLDNFDNLHSSLAESAYNSRPNSFPPELFFETDSVTEVKFSQPSSEDNKQGITQGGTNLPNDGIVYLPQDKSLKSIDENVKVLIPDVNGGYHTEH  
YVTHSYQKGVLTDDKAGFNAYYLSDEKIDSTTKHTYLAIRGSDGIGLDTLNDWVSNAMFAVSNKYIPQAKLANKAMKEKIAELKKGAPGAIIDV  
TGHS LGTIVSSQAVVNLSYAELENVGVVLFDPDVSRSLEKMEGISAKKIQEAGKHVITYYVNPFDIVSMLNREKP

## SEQ ID 651

ATGCTCTATATGGCAACGCAATTAGCAGAATCAGATGTTTCAGAAAAAGTCTCTGCAACAAAAAACAATATTAGTGAAGCTAAGGATACGATTGTA  
GAAATATCGACATCCACTATTTCATCAGCTGAAATAATGGCTATGCACCTTGACCAATCAGAAGTTGATGCTCTGGTTTCAGATATAAAAAATGTCAC  
ACAGTTTGAAGTATGGCGTAGAGACTTCTGATTATGAAGCAGCTTGATCACTATAAAAAAAGTGAACCAATTTACGACCAATTTGGTAAACAGTT  
GCACAAAATTTAAGCTCAAGATGAGCAACTAGCTGGTGATATTGTACGAACTTATCC

## SEQ ID 652

MLYMATQLAESDVSEKVSATKKHISEAKDTIVEISTSTISSAEIMAMHLDDQSEVDALVSDIKMSTVWNDGVETSDYEALDHYKTKMTTFTTNLTVT  
AQNLTAQDEQLAGDIVTNLS

## SEQ ID 653

ATGTCCAAAGAATTGAAATTGCCCTTGAATGAAATGTTGAAAGACAAGAAAGAAATAGCTATTAAGGCAATAGTTGCTACAGCAAAAAGCACTATT  
ACGGATACTGGAACAAATTTAAAGCAACTTTAGAGTCAGATGCCAAGACCTTAAAAAATATGCATCCACCTATAACGCCAATATCACGGATGGT  
CTTGAAGGCCAGTCAGCTCAAGCAGCATCTGATTTCTTGACACAACTTCCAAAACAGAGTTAGATAATCCAGTCAAT

## SEQ ID 654

MSKELKLPNLEMLKEQERIAIKAI VATAKSTITDTGTNLKATLESDAQDLKNYASTYNANITDGLGQSAQAASDFLTQLPKPELDNPNV

## SEQ ID 655

ATGATAGATACAAAAAACTGCAAGAACTCGATCAAGAATATGATCAAAATCTCAGAAACATTTATCGTAACAGAGAGCAACTAGAAGATGACTTT  
CACTTGTTTTATGGCAAGAACAGACAGCCTTAAAGAGTCTGTCTATCAAGCAACTTTAGGACAAGGTTGGGAATTACCCCAAGAGCTCATGCACAC  
CTATATAATATGGATGATAAATAGGATACATTATATCAGAAATTCATGAATATATGGAAGAGCTTGAAGAAAAGGAAATAGATCTTCGAAGAGTT  
TATAATGATAGATAGATGAATTGTATCAGAAGGCTAAGCAAAACGAAGCAAAAAAGGA

## SEQ ID 656

MIDTKKLQELDQEYDQNLRIYRNREQLEDDFHLPMARTDSLKESVYQATLGGQWELPQEAHAHLNMDNDKDTTFISEFNEYMEKLEKEIDLRRV  
YNDRVDELQKAKQNEAKKG

## SEQ ID 657

ATGAAAATTATGAAGAATTAGACAATATAGGAATTAACCGTAAGAATCTTTTTCGGGATCATGATAATATAGCAAAATATCTAATTGAAAAGTA

## SEQ ID 658

MKIMKELDNIGINRKNLFRDHDNIAKYLIEKV

## SEQ ID 659

TTGGGAGATTTTATGAACAATAAAAAACAAATGGACTATAATTTTACTTATTTTTACTATCATCGTAATTGATGTTAGCTTACTATTTGGCGGGAAT  
CGTTTAAAGTTTACCAATCAAATTTATTAATTTTATTAGTAACAGTATAGCAGAATTTTGTTCGATTTTATAATGATAAAAGTCCGACTCCTCAA  
AAATATAAGAAAGAACCATTTTGGATTAAAGCAAAATTTTATTTCTATTGTACTCTTTCTCTCGACTATCTTTATACAAATGGGATATGGAATGTG  
ACGCCAGCTTCCCATACAAATGTTAAAGAATCAATTCCTGGAGTTGGCATTTTAATACAAAGTAGTTTTCTTCATTTATTTCTATTAAAAAAAT  
AACGAAAGTCCCGATGAACGCTTTTATAGTAATTTAGCATTTGTCAGCTTCTTTGATGTTTTGATATCAATAATGTTTATTAATTTCTTATAGCTATT  
TACCTTAATATATATGGAACGTTAGAGTTAAATCAGGCTACCTTTATATTATGGTAGGTTTTATTACTAATGTTTGTCTGTACATATTACTTT  
CTTGAGGGACGGAGA

## SEQ ID 660

MGDFMNNKNTWIIILLIFTIIVIDVSLFLFNGNRLSLPIKLLILLVTSIAEFCSIFIMIKVPTPQKYKKEPFLGKAKFYSIVLFLSTILYITIGIWNV  
TPASPVYNKESILGVGILIQVFFIYFLKKINESPDERFYSNLALSASLMFIISIMLLILIAIYLNLYGTLELKSGLYIMVGLLLLMFAVYYF  
LEGRR

## SEQ ID 661

ATGGGGAAGAAACAAAAATTATCAGTTCTTTAAACAGGTTAGAGAAGATATCGGAATGACTCAACAAGAGTTAGCTATTCCGATAGGTGTTAGG  
AGAGAAACAATTGGTCATTTAGAAAATAACAGGTATAATCCTTCTCTAGAGATGGCATTAAAATTGTTAAGATTTTCGACATGAAGATAGAAGAT  
ATTTTTCAATTAAGGAAAGAGGAT

## SEQ ID 662

MGKETKIISSLKQVREDIGMTQQLAIRIGVRRRETIGHLENNRYNPSLEMAKIVKIFDMKIEDIFQLRKED

## SEQ ID 663

TTGAATAAATTTTTTTTGAATCAGAGAGACTTATTATAAGGCCACTAGAAGAAAGTATTATGATAGTTGGTATACTAGTTTTATGAATCGTGGA  
CCATCTTTAACTCCATTTGATGATGGGATACTTGTATGTCTATGTGTGACATTAATTGGTTTAAAAATTTAGTAAATTTACAAGGAAAGAAATGG  
GAAAGTGACATAGTATATATATTGGTGTTTTTCTAAAAGCGGTGAGCAGCTAGGAATGTTAAATATTTGTTACCTTGCAGAGCAGATATGCAA  
TGGGGAGAATTGGGATATGTTTTTCATAATCAATTTTGGAGTAATGGCTATGCATTTGAGTCAATCTTGGCATTACTTAATAGTACTTATGAAAAA  
TTGGGTTTTTCATCATATTGAAGCACAGATTACTCCTGGGAATGAACGATCGGAAAAGTTGGTTAGAAGATTGGGATTAACTATGAGACAACCTCGA  
AAAGATTTTTTCATTTGAGAATGGAAAATGGACAGATAAACTGATTTATAGTATAAATTTACATAATAATAATTTAGAA

## SEQ ID 664

MNKFLESEERLIIRPLEESDYDSWYTSFPMNRGPSLTPFDDGILDSMCDINWFKNLVNLQRKEWESDIVYIFGVFLKSSEHVGMNLNIVTLARADMO  
WGELGVVFHNQFWSNGYAFESILALLNSTYEKLGFHHIEAQITPGNERSEKLVRRLLGLTYETTRKDFSFENGKWTDKLIYSINLHNNNLE

## SEQ ID 665

ATGAATAAATTTGGATACACTATATTGTAAATTAGCAATGTGCAACACAGTACTAACGGAAAGATTACGACTCCAGCCTGTTGAATTAACATATGTA  
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AATGTTTGTATGAAATCACCATTAGGAATTTATGCAATGATTGAAAAAGAATCACAGAAGATGATAGGTATTATTGAATTAGAAATCAGAGATGAA  
TTTTCTGCAGAAATTTGGTTATATTTTAAATAAAAAATTATAATGGAAAAGGTTATATGACAGAAGCTTGTTCAAAATTTGATGTCAATTTGGATTTGAA  
CATCTAGACTTGGAAAGAATTTATGCTAGATTTGACATTAATAATAAAAAATCTGGAAATGTTTATGGAACGGATAGGTATGAAAAAGAAGCGGAG  
CTTCGTCTCTTGCAAAAATCCAAAAGGTGAGTGGAAAAACAAGCGCTATTATCTATTTTAAAGAAGAATATTTTAAATAAGTTAATACTAAA

## SEQ ID 666

MNNLDTLCKLAMCNTVLTBLRLQPVLELTVNDFLEFSSDSETVFYVMQRYKANTVEEAQVVLANVCMKSPGLIYAMIEKESQXKMGIGIELEIRDE  
FSAEFGYILNKNYNGKGYMTEACSKLMSIGFEHLDLERLYARFDINNKKSGNVMERIGMKKEGELRHLAKNPKGEWKTRAYYSILKEEYFNKVNTK

## SEQ ID 667

ATGGATATTGGACAAAGCTTGCAGTGTTCGCTTTTTTTGAGACTCCGAAAGTAATATTACGGCCTTTTCGCTATGAAGATCATTTGGGATTTTTTAC  
AGCATGGTTAACGACACTAAAAACCTTTATTATGTTTTCCAGAACAAAAACTAAGGCAGCAAGTGACTATCTTTTAGTACATAGTTTTATAAAG  
TTTTCTTTAGGTCAGTGGCCAATAGAAGATAAAGCAACCCACCAAGTAAGTTCTATTAGAATTGAGCATTATGATGCTAAAAACGCGTTGTGCT  
GATATTGGCTATTTTTTAACTATGCCTTTTGGGGACAAGGAATTATGACAGAAGTCGTAATAAAAACTTGTTTATTTATCTTTTCACGAATTTGGT  
CTCAAAACGTTGCGTATTATAAATCATTAGAAAAATAAGGCCACGCCAGAAAGTAGCTAAAAAAGCAGGTTTTCACTAAAAACCTGTTTTAAAGGA  
AGTGATCGTAATACTCATAAAATCTGCATTTATAAAATGTACCAACTAACTAATGATAGG

## SEQ ID 668

MDIWTKLAVFAFFETPKVILRPFRYEDHWFYSVMVNDTKNLYYVPEQKTKAASDYLLVHSFIKFLGQWAIEDKATHQVIGSIRIEHYDAKTRCA  
DIGYFLNYAFWQGIMTEVVIKLVYLSFHEFGLKTLRIITHLENKASQVAKKAGFQLKTCFKGSDRNTHKICIKYMYQLTNR

## SEQ ID 669

GTGGGTGATGTCGTTGAAAATTTTACGGAAGGTAAAAATCCGAAGATTGATACACTTAATGGGAAAAACAGTTAGAATAGAAAAATAAATCCAGAT  
CATTTTGAAGACTTATTTCAAGTTTATGGAGAATTGCTCTACTGAAGATAGTTTAACTTATATATCTTTTAGCAAAATTTAATAGTAAGAATGAATTT  
GATGTCTTTTTCCAACTCTATTAAATCAGAAGATCCTTATTATTAGCTATTGTTGATAATAAATCTGGTAAAGTATTAGGGACTTTTTCTATTA  
ATGCGTATTGATACAAAAATAGAGTTGTTGAAATGGGATGGGTGTTTATTCATCAAACTAAAAACAAACAGGATAGCAACAGAAGCTCAATAT  
TTGGTTATGAAATATGTTTTTGAAGAACTCTGTTACCGCCGTTATGAGTGGAAATGTGATAGTTTGAATGCACCATCTAATAATTCTGCAAAACGA  
CTTGGTTTTTACTTTTGAAGCAACTTTTAGACAAGCTTCTGATATAAAGGTCGTAACAGAGATACAAATTTGGTATTCTATTTTAGATAAAGAGTGG  
CCAGAGAAAAAACACGGTTTGAAAAATGGCTAGATGATTCAAACTTTGCTGTAAATGGGTATCAAAATCAGATCACTATCAAGCATTGAGCAGAAG  
ACAAA

## SEQ ID 670

MGDVVENFTBGNPKIDTLNGKTVRIEKNPDHFDLFQVYVYELSTEDSLTYISFSKFNSKNEFDVFFQTLKSEDPYLAIVDNNTGKVLGTFSL  
MRIDTKNRVVMGVVYSSKLKQTRIAEAQYLVKMYVFEELCYRRYEWKCDLSNAPSNNSAKRLGFTTFEGTFRQAVVYKGRNRDNTNWSILDKEW  
PEKKTRFEKWLDDSNFAVNGYQIRSLSSIEQKTK

## SEQ ID 671

ATGATAAAAAACAAAGTTTATGATCCACTGGAACAAATTAGCCAAAAAAGGAAAAACATTATTCAAGACCGTAGTATTGGCATTTAATAACT  
GTACTATTAGTAGTTGGAATAGCTTTTAAAGGGTTTACATATTTAACTTCAAAAAATGGTCAAAAAACATATCATAACTTTGAACATGATTTCTGAA  
ATAGCATATCCAAATATTTCTATGATAGTCTCTATTACCAGCCAAGCGGTGAGTTTACTGGTAAAGTACATGCTGATAGATTAAAGATATCGAT  
GGGGTTCAAATCCATATTTAGTTTGAAGAAAATTATAGTATCTCAGGTACTTTTGGCACAATGCTGATGAAAAATCAGAAAAGAAATGGCTTG  
TATGATCGAGGTACTAGACAAAAAGTTCCACAATTTTCAATAAAAAATGTTAAGTATAAAAAAGGAGAAGCCAAAAACACTCCAAACAATGATTTA  
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AATATAAAAAACAAATTTGGTTATGGATAGGTACAAGCACAGAATTAGATACATCATTTGGCCAACAAAGTATCAATTCGGTACAGATCCTGAACT  
TTGAATACACCACAAATATTTCATAGATAAAAAATAAAGAAAACTTAAAGGTAACCTCAAAAGTATACCTTTAATAATATAAATATCTACTCAGATTTA  
GAAAAGTATGCCAAAAAATACGACAAAGTAAATATAGCGACAAATTTAAATTTTCGGGAATAATATTAAACAGGTAAAGCCGAAAACTTTAAACAA  
CTTAAAGAAAAAAGATGGGTACATGCTTCAAGTATAGGGGCAACATAGAATATAAGCCCTATTATAAATTAGATAAAGAA

## SEQ ID 672

MIKTKFSDPLEQLAKKRKRKTLFKTVVLLALITVLLVVGIAFKGFTYLTSKNGQKTYHNFELLSEIAYPNISYDSLYYQPSGQFTGKVHADRFKID  
GVQIPYSSFEENYSISGTFGTNADEKSEKNGLYDRGTRQKVPQFNKNVYKKGBAKTTPTNDLKVYNKLNNDLIBIATFDKSYSYKEIKTMI PN

NIKQNLWIGTSTELDTSYWPTKYQFGTDPETLNTPOIFIDKIKENLKGNSKVYPNNINIYSDLEKYAKKYDKVNSDKLKFSGIILTGKAENFKQ  
LKEKEWVHASSIGANIEYKPYKLDKE

## SEQ ID 673

ATGATGAAAAATATATAAAATGGTTAATTCCTATCTATTATTGGGATGTTACTAGTAGGCTGTCAAATGAATAGGGGACCTAAAAGTCAGTCA  
AACGAAGTAAAAAATAGCAAGCAATCAGAAGTGAAGAAAGGTAAAAATATGATAAAAAAGAACGT

## SEQ ID 674

MMKKYIKWLIPISIIIGMLLVGCQMNRPKQSNVKNKQSEVKKGKNMIKKNS

## SEQ ID 675

ATGAAAAAATATATTATTTTCTATTGAACAGTATATTAAATGACCAAGAGATGCCAAAAGGAAAAACAAAAGTTATTTTATCCGCTATAGAGCTC  
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GACAAGCTTTTGGTCTTTATCTCGAGTTAATCGTACAACTATTGGACGCCCTTCTTTACAGAATTATCTACATTTTCTACTAAAGAGGAACATA  
ATTCATTTCTTTGTACAGGACCGTTTAAATTTATTTGAAAAAATAATGATCTCATTAATAATATTTGATGCAAGAATTATTAATCAATAGTGAAACA  
TCAACTATTTTACTAAGCTAATAAATCAACTGATCCAAACATTACTAAAAATTTCAACTGTTTAAAGTGAAGGAAATTCGTTGAATAAAATGGAA  
ATACCTCGAGCAGTAATCGGACAGTTTCACTTTCTTTATTCAATTATATATCTTAATAATAAGCCTGAAAATCTAGAGGAAGAACTAAAAACA  
ATAGAAAAACAAATATTAATAATTACTGAGC

## SEQ ID 676

MKNNIIFSIEQYINDQEMPKGKQKVLISAIELFASQGFHGTSTAQLAKNAEVSQATIIYKFETKDKLLVFILELIVQTIGRPFPTSTSTKEEL  
IHFFVQDRFKPIEKNNDLIKILMQBLLINSETSTIFTKLINSTDPNITKIFNCLSEGNLSLNKMEILRAVIGQFITFFIQLYILNIKPENLEBELKQ  
IEKQILKLLS

## SEQ ID 677

ATGCCGTATGATAACATATATCCAAATACAATATCACTACGTTTAAACAGGAGTTGCAAGGAGTCGATCAAGTGTACCAGAAGTACGCTCTTTTAAT  
AAAGCCATTCCAGAAATTAATAAAACAAAGAAGAAGACCATAAATCCCATTAGTATTGGTATCATTTTTGCAAAAAGCCTGTATTTTATTTCGG

## SEQ ID 678

MPYDNIPNTISLRLTGVARSRSVPEVRSFNKAIPEIKTKKKKTINPISIGIIFAKKPVFLFP

## SEQ ID 679

ATGAGAATTATTGCAATAACTGAAAAGGTTATAAAGAACTGTTTCGTGATAAAGAACACTTGCTATGATGTTTTTAGCACCTATTTTAATTATG  
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ATTAAGCATATTCAAGTGAGATCATTAAATTTAACTCATCTGCTAAAAAAGCACTCAAATCAAATAAAATTTGATGCTCTTATTTCCGAGGACAAAT  
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GGTGATGCATTTACAAAATAATATGTACGGTCAAGGATTACCTAACGTTTCTTCAAATCTTCTGGTACTTCTTCTATTTTAAATATTTTAAAC  
ATCGCAAAATATCTTTGGACTAAAACGATACCGTAAAGTA

## SEQ ID 680

MRIIAITEKVIKELFRDKRTLAMMFLAPILIMFLMNMVMSANSNTKVKIGTINVTNKVSNLNDNIKHIQVRSFKFNSSAKKALKSNKIDALISEDN  
KSYTVFYANTDSSKTTTLTRQAFKTAVENTMNSKELISQVKILANKNPKLAQSLQTRSKYIKEKYNYGNKNTGFFAKMIPILMGFMVFFVFLISGMA  
LLKERTSGTLLDRLLATFPVKRSIDIVFGYMLSYGILAIITQIVIVLSTIWLDDIQVGSIFSIVIIIVNFILALVALSLGILMSTLAKSEFQMMQFIPLI  
IMPQLFFSGIIPLENMASWAQTVGKILPLSYSGDALTKIIMYGQGLPNVSSNLLVLLFLIILTIANIFGLKRYRV

## SEQ ID 681

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GGTAAGTTATTACCAAAAATGGGTTTTATCAGCCATAGCTATTTTTTCAAAGTGGAGGGACCTTATCTCAGGCTTGGCCATACTTGTAGCTCTA  
ATGGGAACAGCACTAGCTTTGATTAGTTTTTCAAGTTTATTATTAAACCTACCAACTA

## SEQ ID 682

MICFIKTLFVKIKRKKTSYVTFFLMPILITLLALSLSFSNNQAKIGILDKDNSQISKQFIAQLKQNKYDIPTKIKKEHIDHYLQDKSLEAVLTI  
DKGFSKVLQKGSQKLNIRSIANSEITEWVKAQTNLYLLENYNIIGDVALGNETFNRILQKNQQLNYDVQVTLTDRSRKAVSSTTTGFLILML  
GSTSVIYSGILADKSSQLYHRLMLSNLSRFYMLSYVCVGFVAFITQIVIMLSLLKVFNISFFVPTSLLLIIFFLSLLAIGFLLIGAITQNSQQ  
SSQLANLIVMPTSMLAGCLWPLSITPSYMQAIGKLLPQNVLSAIAIPQSGGTLSSQWPLYLLALMGTALALISFSSLLKPKTL

## SEQ ID 683

TTGGAGGTGTTTAAAGGCGAAATAATTGGATTAAATAGGACCTCTGGAGCAGGAAAATCTACCTTGATTAAAACTATGCTTGGCATGGAAAAAGCA  
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TCTATCTTTATTACCAACCAGCTTATGGATGAAGCAGAAATTAACAAGTAAGGTTGCACTACTATTACGTGAAACATTTATGCTTTGATCTCCA  
TTACATTTAAAAAACAAATTTAATGTGAGTACTATTGAGGAAGTTTCTTAAAGCTGAAGGAGAA

## SEQ ID 684

MEVFKGEIIGLIGPSGAGKSLIKTMLGMEKADKGTALVLDTPMPDRNINLQIGYMAQSDALYESLTGLENLFFGKMKGIQKTELKQQTITHSKV  
VDLENQLDKFVSGYSGMKRRRLSLAIALGNPTVLILDEPTVGDPSLRKIKWQELINIKDEGHSIFTTHVMDEAELTSKVALLLRGNIIFADTP  
LHLKKQFNVSTIEVFLLKARGE

## SEQ ID 685

ATGAGTTTTGTACAATTAAACAAATGTTGTCAAGTCTACAAAAACGGCAAGAAAGCTGTCAATGATGTTTCTTGTCTATTGAAGCAGGTAATATT  
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GGGCAATCCCAAAAGACTATTTCGAAAAATAAGTTCGCAGATAGGTTATGTTCTCAAGACATTGCTGTTTATCCAGACCTAACTGCTTATGAAAAAT  
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CCGACTGTAGGGATTGATCCTCAATCAGTAATCATATTTTAGAGTCGATTGCTTGTCTAAACAAAGAAGGTGCTACAGTTATTTATACGACCCAT  
TATATGGAAGAAGTAGAGGCTCTTTGTGATTATATTTTATTATGATCATGGTCAAGTTATTGAAGAAGGACCTAAATTTGAACTGGAAAAACGT  
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GGAGAAAAACTCATGTTGAAGATTGATAATAGTGATATGACATCAGTTGTTTATCAGCTCACACAGGCCAATATTACTTTTAGCGAGATTAGACAT  
AACCATTGAAATTTAGAAGAAATTTTCTTACACTTAACAGGTAAGAAGTTACGAGAT

SEQ ID 686

MSFVQLTNVVKSYKNGKKA VNDVLSIEAGNIYGLLGPNGAGKSTLINLILGLIPLSSGKITVLGQSQKTIRKISSQIGYVQDIAVYPDLTAYEN  
VELFGSLYGLKGAQLKKQVLKSLBFVGLHSQAKQFSPQSGMKRRLNICALVHSPKLIIFDEPTVGIDPQSRNHILESIRLLNKEGATVIYTH  
YMEVEALCDYIFIMDHGQVIEBGPKELEKRYVANLANQIIVLTDSRHLLEADKPDWSLIEDGEKMLKIDNSDMTSSVHQLTQANITFSEIRH  
NHLNLEEIPLHLTGKKLRD

SEQ ID 687

GTGAGTAAACACTCACTCACTGAGAGAGGAGCAAAAAGTTATCATGAAAAAGTCATCGATTAAAAAACTACAAAAAGCATATGCCTCAGAAAC  
CGTTTAA

SEQ ID 688

MSKHSLTERGAKSYHEKSHRFKTKTSLCLNRNFK

SEQ ID 689

ATGAAGGCTCAGGCGATTGTCTACAAGCCAAGGGAGAATGTTTCTTTGGATATTGCAGTGAACATTGCCACGATATGAAGTTGTTCAAAATGAGT  
CGCAGAAACATCGGACAAAGCTGCTAAAACTTTGGCAGACAGTGGTTATCAAGGATCATGAAGATGTATTACAAGCGCAAACTCCGAGGAAATCA  
AGCAAACTTAAGCCACTAATCTTGAAGATAAAACCTATAACCATACGCTATCCAAAGAGAGAATCAAGGTTGAGAATATTTTGGCCAAAGTAAAA  
ACGTTTAAATATTTTCAACAACCTATCGAAATCGACGCAACCGTTTGGATTACGAATGAATTTGATTGCTGGAATGATCAACCGTGAAC TAGGA  
TTT

SEQ ID 690

MKAQAIIVTSQGRIVSLDIADVNYCHDMKLFKMSRRNIGQAAILADSGYQGIMKMSYQAQTPRKSSKLKPLTLEDKTYNHTLSKERIKVENIFAKVK  
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SEQ ID 691

ATGAATTATGAAGCAAGCAAAACAATTAAGTATGATGACGATTTAAGCGCCTTGTGGTGTTCAGCGCACTACTTTTGAAGAGATGTTAGCTGTGTTA  
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TACCGCACTTATGAACAAATTCGGGCTGATTTTGGCATTACAGAAAGCAACTTAATCCGTCGAAGTCAATGGGTTGAATCAACTCTTATTCAAAGT  
GGTTTACGATTTCAAAAACCTCATCTTAGTGCTGAGGATACGCTGATTGTGGATGCAACAGAGGTAAAAATCAATCGTCTCAAAAAATCAAC

SEQ ID 692

MNYEASKQLTDVRFKRLVGVQRTTFEEMLAVLKATAYQRKHAKGGRTPKLSLEDLLMATLQYMREYRTYEQIAADFGIHESNLIRRSQWVESTLIQS  
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SEQ ID 693

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SEQ ID 694

MDKLKKLQKENTLLEGRIDNSNNQTYTDMIVYLRGASISPYHQELIRNDIVNMLLEAQERQASLVSFVGEDRHDFFINQVIKSTPKISKKEETLQRW  
DLAILLLTQMIIPLGGYLITEALQQSVDPDLIPITLLDVLFAIFISIIAVKIADTIIYATYNFDKSKKKYFFRYIFLILSLIIAYLILGKYVHLF  
FINIPLWIIYLILGLSFLSHIIVKKYLNKHY

SEQ ID 695

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AAGAAACCTTCAGAAAAATATTGAAGGATGTGCAACTTGCTTTAAATAAATTTGTCGAATTTCTTCAAAAAAGAGCTTTGCAAAAAACGTTTTAAG  
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GAAATGTGTTAAAGCTGAAGCAGCAGTCAATAAGTTAACTGTCAAAGAATCTAAAGAAGCTTTACAAAAACGATTGATACTGTTAAGACACAA  
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SEQ ID 696

MSMKIDKKELLALIASIILLIFASVTFFLFKDHGTTQMDTVESSNVHVSQSLTEAQDMLDKFEKKPSEKLLKDVDELALNKLNSSSKKEALQKRFK  
KAKDKYLPDEADKATKADATDLVEILEQAPSEENVLKABAAVNKLTVKESKEALQKRIDTVKTYQYGLIGNQTPSSSVABTEQGTANPASQDTSY  
VNQNVAPTYEQPQANNTVPVTPGVNNTVPVTPGTGTVPATNGTGAQ

SEQ ID 697

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GCGAAACCACTTATGATCAAAATTTCCAAGACAAAGTGGAGAAATAACAGATAACTCTTACTGGACACCTTTCCAGGAGACGCTCTCAGATACTTAT  
GATAATTTCCAGTCACTTACTTTAGACCAAGCTCAGAACTTTTCAAGTGTACACCAACCTAGTCATCTGATCCAATTTCACTCAG  
ACCTCTTCAGAACCTTCCGACTCAGGAGACAAGCAATCATCAAAAG

SEQ ID 698

MATMKQYHKGDSMTKSQKEALYWMLSVLTTITLIGGSLIFGSHPQTQDKVAKHSKSAASLLKKAVKAVNDADRLATAAAIQEAQKAVDKLAESSKK  
KTLQEQNLNVAKQEQEDAATQAVKAAEETLNQNLKDIAQKAVNDLSNKGKKAALQSRDLAILPAKPIIDEFPQSGEITDNSYWPFGDVSDTY  
DNSQSPTLDPSSASSDVTPQPSHPDPIPPQTSSEPSDSGDKQSSKE

SEQ ID 699

TTGCCCGTACTGCGGCAACTGATTAGACGCCTCTTCTAGTCGCTTTGTATCTGAAGTTAGGGTTGTCGGCAAGAAAGATGTGACTCCAGTAGAT  
AGTAAGCCAGCACTCATTCGCAAAATTCCTTCTGAATCACAATCCATAACATCAGCGCCAGCAAAACCA

SEQ ID 700

MPATAATDLDASSSRFVSEVRVVGKDVTPVDSKPALIRKIPSESQSITSAPAKP

SEQ ID 701

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CACGTTGATCTCTGTTGACATTTTAAATGACACAAAAAGGCCATAATGAGTGGCATTAATAACAGATTGTATGGCAGCTGGAGGTGCCCTT  
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SEQ ID 702

MRVNGGKKMTKYIKADRFYADHVKENGYLEIKDNHFGKIENISGQEEILDYSYQIAPGLVDTHIHGFAGADVMDCDSEGLRMSAGLLSTGVT  
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QGVTVLGHNSNGTYKEAKKAVKAGASVWVHAYNGMRGLTHREPGMVGAVYNLPNTYABELICDGHVDPVACDILMTQKGNHVALITDCMAAGGAP  
DGDYMLGELPVVVSNGTARLXXLIN

SEQ ID 703

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SEQ ID 704

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HSNGTYQEAKEAVQAGASVWVHAYNGMRGLTHREPGMVGAVYNLPNTYABELICDGHVSPACDILMQQKQKGDHVMITDCMRAGGSPDGDYLLGE  
FSVVVANGTARLKESGNLAGSILKLDGLRNVVWGIATPAEAIHMATYVPAVSVGIDVCGQIKAGHAADFIVLKDILTVATYLYNGQKAFDA

SEQ ID 705

GTGAATGAGAGGTTACTATGTCAATAGAATCAGATTTTTTCCGGAAGAAACGTTTTATTTTTCATCGCTTGAGGAGTTTGGATTTATCAAATCT  
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GTTGATTATCCATTTGCGAAGCACCACAATATGCTTCTATCGTGTGTGAGTAAATGGTATGCTCTGCTTTTCCATTGGAAGATGGGGAACCTA  
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AAT

SEQ ID 706

MNREVTMSIESDFRKRKFIFSSLEEFGIKSDQEIYICQTFMDNDFKAIITISLDGKIAGKVIDSALEEEYLPRAANYNGSVFGEVRSAYMAIL  
GDISDSCKDLLFTKQDSNRLAEKIAKTFEDSDVYPFAKHPQYASYSRVSGKXYALLFPLKMGKLENVPAQLSEDEVEVLNIKVNPDMEILLQKEG  
IYPSYHMSKKTWVSIVLDNTLSDIEIFKLVSRSRLVSHNKSNSSEPEFWIIPANPKFYDXLIN

SEQ ID 707

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GATTATTTGCTTTTACAACAGCAGCTGGCAAGGAACCTATACCTGGGCAAGGTTAGAGCGGCCTATTGGAACCTTTTGGAGCGCTTATCAGTAGCC  
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GTGATTTTAGGACCAAAAAGCTGGTATTGCGGTGGGAGACTACCGCTGATTTTATATAACAGCCCAAGTCAAACTCATTGCTATGCTGCGCAA  
GTTCTAGAACTGATATACCTAACGAGGGTTATCGTAAAAATCCTAACATTGACAACTCATGCGTCTCCGAAAATGCCAACAGTACAAGGATGGT  
CTCTTGTCTTTTACCTTATGAAAAACATGGCGTAGCTGAGTGAAGGGCCAAAGCAGATTAAAGCCCTCAATTAATTGCAATTTTAAAGGAAAA  
GAGTATTTTAAAGAGAACAACT

SEQ ID 708

MSLATDYFSRQTPIVEKLMAYGFEKRDNGFYFYNERFMEGEFEAQLRIDEAGNIWDRVIDCDLEEDYLPLOQAAWQGYTGTQVRAAYLELLERLSVA  
CFEATPFQSMQANRLAKHITKEWSDPMDYPFEKHPDLATYRVGGKXYAMISLLADKLDQIPERLVGQTCBVMTVKVNPKAFPQLLQQEGEYIPAYH  
MSKKNWISILDDKVTDKLTWLTQSRQLVNPNGLSNPNPGDYVWIPANLKYVIDAEFAANDVILWTQKAGIAGVDYVLIYITAPVKSIRYVCC  
VLETDIPNEGIRKNPNIDKLMRLKRCQQYKDGLLSFDLMKKGVAAVRGPRRLSPQLIAFLKEKEYFKENN

SEQ ID 709

TTGCGAGACTTCACTAGAAAGAGATTTATTTCCCATGACCCAGTTTACCACAGAATTACTTAACCTCTCTAGCTCAAAAACAAGATATTGATGAATTT  
TTCCGTTCTGCTCTTGAACCTGCAATGAATGACCTTCTCAAGTGAGGCTATCCGCTTCTTGGCTATGAACCATACGATAAGGAGGTTACAAC  
ACCGTAATAGTCGTAATGGTGCTTATACAGTCGATTGAGACCAAGTATGGTGTGTTAATTTGTTGATCCCTAGAGATCGAAACGGGGAGTTC  
AGTCCAGCCTTAATCCCAAGTTACGGTCTGAGACAAATCATTTAGAAGAAATGGTTATCAAGCTTTATCGAACTGGAGTCACAACACGTGAAATC

AGCGACATCATTGAGCGTATGTATGGTCATCATTACAGTCCAGCAACAGTATCTAATATCTCGAAAGCGACACAGGAAACGTGGCTAGCTTTTCAT  
GAACGTTCCCTTAGAAGCTAACTATACCGTATTATATCTTGATGGGACTTACCTTCTCTGAGACGTGGTACAGTTAGTAAGGAATGCATCCACATT  
GCACTAGGCGTCACATCATATGGGCATAAGGCTATCCTTGGAATATGACATCGCACCCCAATGAAACAAATGCTTCGTGGTTCAGACCTTTCTAGAAAGA  
TTTAAGGGTCAAGGTACAAACAAAGTCTCTCTTGTGTGAGTGAAGTTTAAATGGACTTGATCAGCTTATCCAGCAAGCCTTCCCAATGGCCAAA  
CAACAGCGTTGCTTGTCCATATTGGCCGAAATATTGCAAGTAAGGTGAAACGAGCAGATCGTGTCTAATTTTGGAGCAGTTTAAACAAATTTAT  
CGCGCGATCAATGATAGAGGAAGCAAAGCAAGCCTTAGATAGCTTTATCAATGAGTGGAAACCACTACAAGAAGGTAATAGAGACCTTAGAATCA  
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CGTCAACCAAAAGAAAGTCTCTTCCCAATGAAGAATCCCTAGAACGCTATCTCGTCACACTATTAGTGATTACAACCTTCAAGCAAGGACAA  
CGAATCCACAAAGGTTTGGCCAAATGTACGGACACACTTGAAAGCCTATTGTAT

## SEQ ID 710

MRDFTTRKRFIPMTQFTTELLNFLAQKDIDEFFRSSLETAMNDLLQVELSAFLGYEPYDKAGYNTGNSRNGAYTRRFETKYGVVNNLIIPDRNGEF  
SPALIPSYGRRDNHLEEMVIKLYRTGVTTREISDIIERMVGHHSYPATVSNISKATQENVASFHERSLEANYTVLYLDGTLYPLRRGTVSKECIHI  
ALGVTSYGHKALIGYDIAPNENNASWSDDLRFKQGVQVSVLVSDVDFGNLQLIQAFPMKQQRCLVHIGRNIASKVKRADRALILEQFKTIY  
RAINVEEAKQALDSFINWKPHYKKVIETLESLENLLIFYEPHQIWSIYSNTLIESLNKEIKRQTKKKVVPNEBSLERVLTFLSDFYNFKQGG  
RIHKFGGQCTDTLBSLFD

## SEQ ID 711

ATGACTCAGTTTACCACAGAATTACTTAACTTCCCTAGCACAAAAACAAGATATTGATGAATCTTTCGCTCCTCTTTAGAAATAGCTATGAATGAC  
CTCTTGCAAGTTGAACCTATCAGCTTTTCTTGGTTATGAACCTTATGAAAAAGAGGTTACAACACAGGTAATAGCCGTAATGGGACTTATTCTCGT  
CAGTTTGAACAAAGATAGGCTTAGTCAATTTAATCATCCCAAGAGATCGAAACGGCGAGTTTTCACAGTTTATATACCATCTTATGCTAGACGA  
GAGGACCACTTGAAGAGATAGTGATCAAACTCTATCAGACTGGCGTTACGACACGCGAAATCAGTGACATTATTAAGCGCATGTATGGTGACCAC  
TTGTTTCTGAGTGAAGCCTCGTTACAAAAAGGTTA

## SEQ ID 712

MTQFTTELLNFLAQKDIDEFFRSSLETAMNDLLQVELSAFLGYEPYEKEGYNTGNSRNGTYSRQFETKYGLVNNLIIPDRNGEFSFVLLPSYARR  
EDHLEEVIVIKLYQTVTTREISDIIKRMVGDHLFLSGSLVTKRL

## SEQ ID 713

ATGTTTTCGAGCGATTTTGGATTGAGATAATTAATGTTGACGACCTATCCTTGCAAGAGGAGAGATTTTACCTTCAGAATTGCTGGCTTATGCA  
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CGTCATGTGCGGAGAGTGATACCACTGACTCTATTTTTGAAAGAAGATGGCTTGTGTTGATTAGCTAATCATAAAAAATATTAACCTGTAAAAAAA  
GCACTTAATCGTGTGAAAAGGTAGATTCTCCGAAACACCTCTTATATCATTAGTGACTGCTTCTCAAAGCAATATTTGATGTTTTAGATACT  
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CACTTAATGATGGGAAGCAAAATTTTGAATGCTGACCGATTTCACAAACACTTGAGCAAGATAAAGAGAACACTAGAAATGAAAAGATGCAA  
CTTCAAGATGCTATTATGAAGCAAGACAATTATCTAACATGTGTTCTTAAATTCACAGGTTTTCACAGAACTTTCTCTTATAATAATATGCTC  
AGCAATAACCTTAACGACAAATGTAACCTTAAACAATTATTTCCATTGGTATTTCCATTATGCTATGTTTACCAGTTTTTATGGAATGAATGTT  
AAGTTGCTCTTTGATAGTGTGATGCTGCTGCTGGGTATTGATTATTTAATTACGACTATCATTACTATTATGCTCTCTATGTTATGTACATT

## SEQ ID 714

MFSSDFGFEIINVDDLSQLQERFLPSELLAYARDENESSFVRDIEGHLALVYQLLDTQGHVDDVRHVPRVIPVTLFLKEDGLFVLNHNKINLVKK  
ALNRVKEVDSPKHLLSLVTAFSKQYFDVLDITSEERDKLINDLRKPNKSNLARLANLQSGTVHLMMGTKQNFEMLTDLQNIQDKENTRNEKMQ  
LQDAIEARQLSNMCSLNSQVQFQLSSYNVLSNNLNDNVTTLTIIISIGISIIAMVTSFYGMNVKLPFDSDAVVWVLIILITITITIMLSIVMYI

## SEQ ID 715

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GATTATACCTTAATTCGTAGACGTCGCCGATATACGAAGAACGTAACAATAAAGTTACTATATTACTATGCTTTAGGCATTATTGTAACGGAA  
AATGCTGTTATCAACAATTTGCTGTCATGACATGACCTTTTCGATCATTTCACAACCGCGGGTCAAAATTTCTATACCTTCATGAAGACACGT  
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TTGATGACCATGGCTTATGATATACCAACTGTGATTTTCTCGCCTATGGTATGATTTTCAAAACAACTGGTTACCACATAAATGGCCTAGAACAT  
GCTTTTGGTATATCACCTTGATTGCTATGCTCTTAGTTCCTTTGTTGTTGATTACTTTATTAGAAAAAATGGTTC

## SEQ ID 716

MKQMFLLSAIEFKEIETFEPEGAWIKLVNPSQEEESMKIADQFNIDISDLRAPLDVEETSRIAVEDDYTLIIIVDVPIYBERNNKSYVITMPLGIIVTE  
NAVITTCCLHDMTLFDHFHNRVKNFYTFMKTRFVQILYRNAELFLTALRTIDRQSERLEAQLEAATRNEELIDMMELEKSIVYLKASLKFNERIV  
KLLSSSTSSLLKKYIEDEDLLEDTLIETQQAIEMAGIYENVINAMTETTASIIINNQNTIMKTLALMTALDIPTVIFSAYGMNFQNNWLPNLNGLEH  
AFWYITLIAMLLSSFVVIYFIRKKWF

## SEQ ID 717

ATGTCAAAGGTAAGGTATGGTGTGTGTCACGGCAAAGGTGGCGCCTCGTTTTTATTGAAGGAGTCCGCTTAGCAGGAAATGGTGAAGTTGTGGCT  
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TCAATTGATGTGATTATGTGGCAACAATTAATCAAGACCATTATAAAGTTGCTAAAGCAGCTCTGTTAGCGGGAAACATGTGTTGGTAGAAAAG  
CCTTTTACATTGACTTACGACCAAGCGAATGAATATTTCGCTTTGGCAGAAAGTTGTAATCTGTTTTTGTATGGAGGCACAAAAATCGGTATTTATT  
CCGATGACACAAGTAGATTAATAAATTTACTTGCCTCTGGTGAAATAGGAGAAGTGATCTCCATCTCATCTACAACAGCCTACCCAAACATTGACCAT  
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GCAAAATTTGGTGAGAAATGATCTAGTGCAGCAAGGATTCAAGTTGACATGGTTAGTGATTTTGAGAAAGAAGCTTATCATGTTAGTCAAATGATT  
TTAGAAGGGCAAAGGGTAAGTCATATCATGACGCTCAGTTGACGCTGTCAAGTTAAGATTATAGAAGACTTATACCGTTTCATGGGGGAAA

## SEQ ID 718

MSKVRYGVVSTAKVAPRFIEGVRLAGNGEVVAVSSRTLESAQAFANKYHLPKAYDKLEDMLADESIDVIYVATINQDHYKAKAALLAGKHVLEK  
PFTLTQDQANELFALAESCENLFLMEAQKSVFIPMTQVQIKLLASGEIGEVISISSTTAYPNIDHVTWFRELELGGGTVHFMAPYALSYLQYLFDAT  
ITHASGTATFPKGQSDSQSKLLQLSNGVLVDIFLTTRLNLPHEMIYGTBGRILIPHFWKTHAKLVRNDTSARTIQVDMVSDFEKEAYHVSQMI  
LEGQVRSHIMTPQLTSLGKVIIEDLYRSWGK

## SEQ ID 719

ATGAAATTAGCGGTTTTGGGGACAGGTATGATTGTTAAGGAAGTTTTGCTGTCTTGCAAGAAATGATGGTATTGATTAGTTAGTTGCTATCTTATCA  
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ATTGACACGGTTTATATTGAGACTGCCGAATCACCTGCTTTGCTTATGCTAAGGAGGCCCTTCTAGCTGGCAACATGTCTATTGTGAAAAGCCC  
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AACATGACCTTTATCAAAGAGCATCTTGACCAACTTGGCGATATCAAAATTGTAGAATGCAATTATTCACAAATATTCTTCACGCTACGATGCCTTC  
AAACGAGGTGATATCGCGCCAGCTTTTAACTCTAAATGGGTGGTGGAGCTTTACGTGATTTAAACATCTACAACATTCATTTTGTGGTAGGGTTA  
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CCTCAGGTTCAAGTTAAGTCTACACGGTCACGAACCAAGTGAATTAACCAACCAAGCATGACACCGGATGAAGAGTTTGTGCGATTTTAGG  
GACATGATTGACCAAGAGACTTTGAGAAAGTGAATCAGGCTTTGGAACATAGCCGAGCTGTCATGGCTGTGTTGGAGCGCGCTGTTTCATTCG

## SEQ ID 720

MKLAVLGTGMIVKEVLPVLQKIDGIDLVAISTVRSLLTAKDLAKAHMPLATSKYRAILGNEEIDTVYIGLPNHLHFAYAKEBALLAGKHVCEKP  
FTMTAGELDELVVIARKRKLILLEAITNQYLSNMTFIKEHLQDLGDIKIVECNYSQYSSRYDAFKRGDIAPAFNPKMGCGALRDLNIYNIHFVVL  
FGRPKTVQYLANVEKGIDTSGMLVMDYEQFKVVCIGAKDCTAEIKSTIQNGKSLAVLGATNTLPQVQLSLHGHEPQVINHNKHDHMYEEFVAFR  
DMIDQRDFEKNQALEHSRAVMAVLERAVHS

## SEQ ID 721

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CTAGATATGTTGGCAAAAACTCAGCAACGAGCGCTTTGTAGCTAACGCTAAACCAGAAAGTCTGCTCAAAAAAGAAAGATAACAGACGACTAC  
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## SEQ ID 722

MSKELSPKYNPAEVEEGRYQTWLDQDVFVKPSGDTEAKPYSIVIPPNVTGKHLHLGHAWDTTLQDIIIRQKRMQGFDTLWLPMDHAGIATQAKVEE  
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HKDVEGAFYHMYNMLEDGSRALVATTRPETMFGDVAVAVNPEDARYKDLIGQNVILPIINKPIPIVADBEHADPEFGTVVKITPAHDNDFAVGQ  
RHNLPQVNVNMDGTMNELADEFNMGDRFEARKAVVAKLESLGNLVKIKKTTSHVGHSERTGVVVEPRLSTQWFVKMDQLAKNAIANQDTEBDKVEF  
YPRFNDTFMSWMNVHDWVISRQLWVGHQIPAWYVNVNGEMYVGEDAPEGDWTQDEVDLDTWFSALWPFSTMGWPDTEADFKRYEFTSTLVTG  
YDIIIFWVSMFISQLELIRDEEGRKMSKSLGNDIMPDIIEKYGADALRWFLSNSGAPQDVRFYSYKMDASFNKINW  
ISRYILMNNEGLTLDQARENVEKVVNSQVGNVTDNRWILHNLNETVGKVTENFDKFEFGVAGHILYFNFIWBEFANWYVELTKEVLYSDNEDEKVI  
SVLLYTLQDILRLHPIIMPFFVTBEEIFGQYARBSIVLASYPQVNFATFENQTAHKGVBESLKDILRSVRNSRAEVNVAPSKPTILVKTSDSELSFFK  
DNSNYIKRFTNPETLEISSAIATPELAMSSVITGABIFLPLADLLNVEBELARLEKELAKWQKELDMVGKLSNERFVANAKPEVVQKEKDKQTDY  
QTKYDATIARIEBEMKILVR

## SEQ ID 723

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## SEQ ID 724

MTELSPKYNPAEVEAGRYQKWLADVFKPSGDQKAKPYSIVIPPVNTGKHLHGAWDTTLQDIIIRQKRMQGFDTLWLPMDHAGIATQAKVEER  
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KDVGAFFYHMNYMLEDGSRALQVATTRPETMFGDVAVAVNPEDPRYKDLIGKNVILPIVNKLIPIVGDEHADPEFGTVVKITPAHDPNDFEVGQR  
HNLQVNVNMDDGTMNELAGDFAGMDRFEARQATVAKLEELGALVNIIEKRVHSHVSGHRSERSGAVVEPRLSTQWFKMDELAKQAMDNQETDDRDVDFY  
PPRFNDTFLQWMENVHDWVISRLWWGHQIPAWYNABEGBIYVGEBAPEGGDDWTQDEDVLDTWFSALWPFSTMGWPDTDVEDFKRYFPTSTLVTGY  
DIIFFWVSRMIFQSLEFTRGRQPFQNVLIHGLIRDEEGRKMSKSLGNGIDPMDVIEKYGADSLRWFLSNGSAPGQDVRFSYEKMDASWNFINKIWN  
SRYILMNNNEGLTLEDAESNVAKVAASEAGNVTDQWILHNLNETTAKVTENFDKFEFGVAGHILYNFIWEEFANWYVELTKEVLYSDNEAEKVI TRS  
VLLYTLDKILRLHPIMPFVTEBIYAQYAQGSIVTDVYVVRPAFENEAHKGVESLKDILIRAVRNARAEVNVAPSKPITILVKTADSELEDFNS  
NINIKCFTNPEKLEISSAIAPELAMTSIITGAEIYLPADLLNVEERLARLDKELAKWQKELDMVGKKLGNERFVANAKPEVVQKEKDKQADYQ  
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## SEQ ID 725

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## SEQ ID 726

MWRYALWFTAKRVGEKKMNIIIGAQASGKMTIGQEIYAKQTMGLFHNHDSIDFVLRFPWSPDSIALTESIRFKFFETFAKTGQEMIFTIVIDF  
NDSRDVVFLEKIQIVFQSHNQEVLFVELETELSERLKRNRTENRLKHKPSKRDIKWSESDICSTMDYAI FNPVEAPEALTYHKKINNTCLTATETA  
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## SEQ ID 727

GTGGGAGGAGCAGAAACAAAAATGAACCTTATCATCATTTGGTGCTCAAGCGTCGGGCAAGATGACCATTGGGCAAGAAGTTGCCAGGCAGACAGGC  
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GCTTTTTTTGAAAACCTTTGCTAAGACAGGTCAAGACATGATTTTACTATTGTAATTGACTTCAATGATCCAAATGATGTAGCAATGCTTGAAAAG  
ATTCAGGCTGTTTTTTCAGTCTTATGACCAAGAGGTTCTCTTTGTCGAATTAATAACAGATATAGAGGAACGCTCTTAAACGCAATCGCACAGAAAAT  
CGTCTCAAAACATAAACTCTTAAACGCAACATCGAGTGGTCAGAACAGATATTCAATCCACGATGGCATATGCTGTTTTTAATCCAGAAGAACCA  
CCCAAAACGCTCAGCATTACCAAAAAATCAATAATACCCAGCTCACCGCTGCTGAAACAGCGCAGCTTATTATCCAAAAATGACTCATATCAAG  
GAGAAC

## SEQ ID 728

VGGAETKMNLIIIGAQASGKMTIGQEVARTGMGLFHNHDSIDFVLRFPWSPQESTALIERIRFAFFETFAKTGQDMIFTIVIDFNDPNDVAMLEK  
IQAVFQSYDQEVLFVELKTDIEERLKRNRTEENRLKHKPLKRNIEWSEQDIQSTMAYAVFNPPEPPKTLTHYQKINNTQLTAAETAQLIIQKMTIHX  
EN

## SEQ ID 729

ATGATTAAAGATACTTGGAGAAATCGTAGATAACCAGCTACCTGTTGTGGAACGAATCGTCTGTTGTCGCTCAACGCAAGTTAGAAGATGCTAAG  
GAGATATTTGAATTTGTCAAACCTTGATGAGGTGAGTTATCCAGCAGGTTTTCCGGCTGTTTAAAGCTTGGAAGAAGAGATAACCTATATTCAAGAG  
ATTTATCCAACTAATCTGAAAAAGAAAGTTACCTCTGGTTATGCTATTACTCTAAAAGCGCATGATAAGGTAATTTGGTTTCAGTAGATTTTAAC  
CATCGCCACGAGATGACATTTTGAATTTGGCTACCTGCTCCACCTGATTATTGGGGACAAGGCATTGTGCCAGAACGAGCTTCAGCCCTTGTG  
GAGATAGGTTTACACTGCTAGGACTACATAAGATTGAGCTGGGATGCTATGACTATAATAAGCAAGTCAAGCGGTTGCGCGCAATAGGTTTT  
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AGAAGA

## SEQ ID 730

MIKILGEIVDNQLPVVETNRLLRQRKLEDAKEIFEVFKLDEVSYPAFPVAVKSLSEEBITYIQEIYPTNLEKEKLP SGYAITLKGD DKVIGSVDFN  
HRHEDDIFEIGYLLHPDYWGQIVPEASALVEIGFTLLGLHKLIELGCDYDNKQSQAVARKLGFTLEANIRDRDAQGRKCGDMRFGLLRSEWEKK  
RR

## SEQ ID 731

TTGCATAAAATTGAGCTGGGTTGCTACGACTACAACAAGCAAAGTCAGGCAGTGGCTCGCAAATTAGGCTTTACCTTAGAAGCCAAATGCCCGTGAC  
CGTAAGGACGTTCAAGGTCGCCGCTGTGGCGACATGCGTTTTGGGTTACTGAGAAGTGAGTGGGAGGAGCAGAAACAAAAA

## SEQ ID 732

LHKIELGCDYDNKQSQAVARKLGFTLEANARDKDVQGRRCGDMRFGLLRSEWEEQKQK

## SEQ ID 733

TTGAAACAAAACGAGTTGCGGATGTTATCATCCGAATTTGGGTGGTACCGCGGAAATCGTAACACGAAATTCGTCCCTGTCAGAATTGACAGGGAT  
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TTGCGTCAGCGAACCGTGGGGGATGTCACGCCATGTTGATTACGTTTGTCTGGAAGAGGTTGCCTATCCAGCAGGACTCAGCCCAATAGCTTCT  
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TATATGACAGAAGCTGTGCGCGCTTTGATTGAAGTCGGTTTTACCTTCTCAATCTCCACAAAATCGAAATCCGCTGCTATGATTACAATAAGCAA  
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GGTTTGTGAGGAGTGAGTGGGAG

## SEQ ID 734

MKQNELRMLSSFEWGWRGNRNTKFPVPRIDRDFLYLGVRRLKYMQLIEDFDGKALPKLETDRILILRQRTVGDPAMPFDYVCLLEVAYPAGLSPIAS  
LEDEYDYFENRYQNLKAKLP SGYITVKGSDRIIGSCAFNHRHEDDVEICYLLHPDYWGHHGYMTEAVALIEVGFTLLNLHKIEIRCYDYNKQ  
SRRVAEKLGFTEATIRDKDNQDNRCVNLIYGLLRSEW

## SEQ ID 735

ATGGGATTTCAAACACCTCTAAGTTAATTTATCTAGCAAAATAAGGCTACTTTTCGCAAGGTAAATCAAATTTATTTGCAAAAACAACACCATTA  
TCAACTAACTGTTTAAATAGTGTGACCAATACCTTTTAGTGCTAAAACATCTGCTTCACTTACTTTTCGCAAAATGCTTCAAGGCTGACAAAGGCA  
GCTTCTTTTAAACATCTTCTTTATAGCAGTTAAACCTTCTAAAAGATCGACTGCTTTTGGCGCTTCAGGAGCCGCTTTTTTCGGTAATGCGACT  
TCTTGTAAAGTT

## SEQ ID 736



MFQNTSLIYSSKIRLLSQGKSNYFAKTTPLSTNCLIAAGIPFSAKTSASLTAFANASRLTRPASFKTSCLLAVKPSKRSTAFGASGVFFGNAT  
SCKV  
SEQ ID 737  
ATGAGGAGAAAGCATTATACAATGGCAAAGCGTATTAAACCGAATAAAAAAGAGAGCTTTTGAAAGCTAAAGGGATCAATTGGAAGGATGTTCCGA  
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CAAGATGTTTTAAAGAAGCTGGCCTTGTCAGCCTTGAAGCATTTGCGAAAGTAAGTGAAGCAGATGTTTTAGCACTAAAAGGTATTGGTCCAGCA  
GCTATTAAACAGTTAGTTGATAATGGTGTGTTTTTGCAAAA  
SEQ ID 738  
MRKHYTMAKRIKPNKKRELLKAKGINWKDVRLSQTLQEVALPKKTAPEAPKAVDILLEGLTANKQDVLKEAGLVSLAEFAKVSEADVLLALKGIGPA  
AIKQLVDNGVVFVAK  
SEQ ID 739  
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GAAAGACTTACTCTTGATGAGTTTGCAGGGCAGCCAGTTGTAGCTGGTATCCGCTCTGACCTTGTCGAAACCTATATGCAGAAGGCATCCATTCA  
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TTTTAAAAA  
SEQ ID 740  
VAKQKNRKALKKLEMKRNGLLKKAGQVFDKAVESVETAVDKTIISAGKNLVEKGSQTVENLTASKERLTLDEFAGQPVVAGIRSDLVETLYAEGIHS  
AQAFKEWTEKDLLALKGIGPATVKKLVENGASFVK  
SEQ ID 741  
ATGTCATACGAACAAGAAATTTTTAAAAGACTTTGAAGAGTGGTTACAATCGCAAATAAGTATCAACCAAATGGCAATGGACAGTGCAAAGAAAGTT  
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TATCATAACCAAAAATCTTCCATGATTGCGCTGATGGTCTTTTGGACAACGCTCATAT  
SEQ ID 742  
MSYEQEFLKDFEEWLQSQISINQMAMDSAKKVL EEDKDERAADAYIRYESKLDAYRFLQGKFNNYHNQKSFHDLDPDGLFGQRHY  
SEQ ID 743  
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SEQ ID 744  
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SEQ ID 745  
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ACACACCATTAAAGAGCTATTGAAAATAGTAAATTTCTCAAATAGAAATTAGAC  
SEQ ID 746  
MSPGLMIKDEGLFNTIKIISRGLKNERC PHPKLINVLERKLEIILGDQKHILEKDSLISLSPQETHHLRAIENSKFLQIELD  
SEQ ID 747  
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CAAGTGCCTTTTAGAT  
SEQ ID 748  
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QVLLD  
SEQ ID 749  
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TTGCTTCTG  
SEQ ID 750  
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LLL  
SEQ ID 751  
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SEQ ID 752  
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SEQ ID 753  
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AAA  
SEQ ID 754  
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K  
SEQ ID 755  
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GCGCCTCAACGAGTTAATGTTGATTACATGAGTCAGGAGAAGTTTTATGATAAGCTTATCACCAGCTTTGAAGATGCGAAAACTTGCAACCTCAG  
GATGTCGGGAAATCTATTTCAAA

## SEQ ID 756

MSLQKRITMAKTGTLNLRVDDSVKSAADDILKRLGIPMSTAIDMFLNQIILTGGIPIFDVSLPEAPQVRNVVDYMSQEKFYDKLITTSFEDAKTCNPQ  
DVGKIFYFQ

## SEQ ID 757

GTGACTTACCAGATGGTTCAAAGATACGTAGATGTGACTGTTAAGGTTGTCGATCCAGTACAGATGCCGATAAGATGATCCAGCAGGTAAAG  
GATCAGCAAGTCAATGTAGTGTGAGACACCGAAGGCAGAAAGATTCTATTGTTAACTTACCAGATCTTCCGAAAGGTACAAACAGTAGCCTTTGAAACT  
CCAGTTGATACGGCAACACCGGGAGACAAACAGCAAAAGTTGTTGTGACTTACCAGATGGTTCAAAGATACGTAGATGTGACTGTTAAGGTT  
GTCGATCCAGTACAGATGCCGATAAGATGATCCAGCAGGTAAAGATCAGCAAGTCAATGTAGTGTGAGACACCGAAGGCAGAAAGATTCTATTGTT  
AACTTACCAGATCTTCCGAAAGGTACAACAGTAGCCTTTGAAACTCCAGTTGATACGGCAACACCGGGAGACAAACAGCAAAAGTTGTTGTGACT  
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CAAGTCAATGTAGTGTGAGACACCGAAGGCAGAAAGATTCTATTGTTAACTTACCAGATCTTCCGAAAGGTACAACAGTAGCCTTTGAAACTCCAGTT  
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CAGATCTTCCGAAAGGTACAACAGTAGCCTTTGAAACTCCAGTTGATACGGCAACACCGGGAGACAAACAGCAAAAGTTGTTGTGACTTACC  
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AATGGTAAAGGAAATAAACTACCAGCAACAGGTGAGAATGCAACTCCATCTTTAATGTTGTAGCTTTGACAATTATGTCATCAGTTGGTTTATTA  
TCTGTTTCTAAGAAAAAAGAGGAT

## SEQ ID 758

MTYPDGSKDTPVDVTVKVVDPRTDADKNDPAGKDQQVNVGETPKAEDSIGNLPDLPGKTTVAFFETPVDTPATPGDKPAKVVTYPDGSKDTVDVTVKVV  
VDPRTDADKNDPAGKDQQVNVGETPKAEDSIGNLPDLPGKTTVAFFETPVDTPATPGDKPAKVVTYPDGSKDTVDVTVKVVDPRTDADKNDPAGKDQ  
QVNVGETPKAEDSIGNLPDLPGKTTVAFFETPVDTPATPGDKPAKVVTYPDGSKDTVDVTVKVVDPRTDADKNDPAGKDQQVNVGETPKAEDSIGNLP  
DLPGKTTVAFFETPVDTPATPGDKPAKVVTYPDGSKDTVDVTVKVVDPRTDADKNDPAGKDQQVNGKGNKLPATGENATFFNVVALTIMSSVGLL  
SVSKKED

## SEQ ID 759

ATGCGTAGAGCAGAAAAATAACAAACACAGCCGCTATTCCATTGCAAACTGAGCGTTGGGGTAACAGGTATAGCAATTGCGAGTCTCTTTTAGGA  
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GGCCTTATCTCTTGAAGTATAAGCTTAGAAGCTGCCAAGAGGAATTTAAAGAACTAGAGAAGTACGCTTATCTGAAGCAAAAAAGAAACG  
TATAAACAATAAATAAAGTGCACAGACAAAGATAAGCTATTATTACGATATCATAGTGAATATGACAGCCGTTAAGGATCTTCCAGCGTCT  
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TCTTCAGTAGCAGCTACGACAAGCCGCTCTCCATCAACTCCAGCTGAATCAGAGACTCAGACGCCACAGCTGTTACTAAAGACTCTGATAAGCCA  
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CAAGAACAGCTCTTACTCTCGAAATCGCTCATGTCTCAAGACAGGTTAGGGCCCATGAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAGTCAAG  
CCACTCTTTATAGCTACTATGACTTTGATGTCTCTATTGTCAGTCTTTTAGTCACAAAAACGCCAAAAAGAACTAAAAA

## SEQ ID 760

MRRAENKHSRYSIRKLSVGVTSIAIASLFLGKVAYAVDGIPIISLTQKTTATTSENWHHIDKGLIPLGLISLEAAKEEFKKEVEESRLSEAQKET  
YKQIKITAPDKDLFLTYHSEYMTAVKDLPAESTTTPQVEAPVQETQASASDSMTGDSVTTDSPEETPSSESPVAPALSEAPAQPAESEEPS  
VAASEETPSPSTPAAPETPEPAAPSPSPSESEPSVAAPSEETPSPETPEPAAPSPQPAESEESVAATTSPPSPSTPAESETQTPPAVTKDSKPF  
SSAEKPAASSLVSEQTVQQTSPKRSSDKKEEQESYSPNRSLSRQVRAHESGKYLPTGEBKAQPLFIATMTLMSLFGSLVTKRQKETKK

## SEQ ID 761

GTGACTGTTAAGGTTGTCGATCCAGTACAGATGCCGATAAGATGATACAGCAGGTAAAGATCAGCAAGTCAATGTAGTGTGAGACACCGAAGGCA  
GAAGATTCTATTGGTAACTTACCAGATCTTCCGAAAGGTACAACAGTAGCCTTTGAAACTCCAGTTGATACGGCAACACCGGGAGACAAACAGCA  
AAAGTTGTTGAAACTTACCANNNNNT

## SEQ ID 762

MTVKVVDPRTDADKNDTAGKDQQVNVGETPKAEDSIGNLPDLPGKTTVAFFETPVDTPATPGDKPAKVVTYPXX

## SEQ ID 763

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GGTGAGACACCGAAGGCAGAAAGATTCTATTGGTAACTTACCAGATCTTCCGAAAGGTACAACAGTAGCCTTTGAAACTCCAGTTGATACGGCAACA  
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## SEQ ID 764

MYRAIQNKVKENIMFRRSKNNSYDTLQTKQRFSIKKFKGAASVLIGISFLGGTQGGQFNISTDTVFAAEIVISGSAVTLNMTKNVQNGRAYIDL  
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KWDEGSRDKVLISLDDIKTDIDNNPKTQSDIANKITEVTNLEKILVPRIPDADKNDPAGKDQQVNVGETPKAEDSIGNLPDLPGKTTVAFFETPVD  
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## SEQ ID 765

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TATGGCTCTTTTAGGAGAACTTTTCTTGTCCACCATATTCAACAATATTATATTATCATCGTCCCTGGCGTAGCAATGTTATTGACCCCTTACTT  
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GCTGCTAAGCAATTAAGTATGAAAATAAGAAAGTAGAAGAGTTTCCAATTTACTTGGATTTTCCACTTCTTCTAATTTTCAAGGACATTTAAA  
AAAATAGTGGGAATTAGCCCACTAGAATATAAGCAAAAGCCTAAGACAATA

SEQ ID 766

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VKSSEFLLKETVEQFSNSIVPIISGDELRSEKNYSIMYDRLSQATIQAGLDIETAYRARDRFIKENESTISLNEVLKLRDTAILFYTTQQVHSLK  
KHLETPHSQTIVAVIRYLENNLRFIKTBIEIAKECHMSSESKLRKLFQKQKHITIQYVFLNLKIEBAKQLLDENKKVEVSNLLGFSTSSNFSRTFK  
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SEQ ID 767

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GAAGACCTTTTTTACCACCTTATTTAAGCAGGGTAGAGATGTTTACGTTGAAGAGTATTAGTTTCAATATCTTAAAAACATTTTGAACAAAAATCAAGAT  
AGTATCGTACGTTATTATTATCTGACGATCCCTATTTTTTATTACGCTTTAGAAGTGAATTAGAACACGATGTTTACCCTAGATTGCGTGAGGAG  
TATATTACAAAGGTGGACATTCTGAAGATTTCTTAAAACAATTTCTTTTATCCAGTTTATCGAGACCTTAAAGTGGTGGCTTCATCAAAGACAG  
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SEQ ID 768

MSYMKDRQIQKTKVAIYNFISLLQENDYSKITVQDVLGLANVGRSTFYSHYESKEVLLKELCEBDFHHLFKQGRDVTFEYLVHILKHFEQNQD  
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SEQ ID 769

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SEQ ID 770

VSDMTKDRQIKKTKTAIYSFIALLOKKEYSKITVRDMITLANVGRSTFYAHYESKEMLLKELCEBDFHHLFRQKRNVTFFEDYLVHILKHFEQNKD  
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SEQ ID 771

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SEQ ID 772

MESGTPSKSKFRVDSNLGSLDKMKVDMATDNNGSRIYNGFQFKIRDITILANHPRISSKK

SEQ ID 773

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SEQ ID 774

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KLFLDGPVDSIDYALHDELKGLSQVRSINQLNIWSMDGIDNRAIHCCCLNQLISEKDKRAIRTIQHYKINDVTVBEIDYSLREHQNHCKPLKN

SEQ ID 775

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GAAGTCAAC

SEQ ID 776

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NIFLDGPVDSIDYCTLHHELSQLPHIVSVNQLNVWSMDGIDHRAIHCCCLRESTTEKHCKKSIRLICQRYNINSVTVBEIDTSLNEHQHHCSSLSSI  
EVN

SEQ ID 777

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## SEQ ID 778

MTDTMILNDNHKIPITLGLGTWIMIDNDRVAQVVKDAIELGYRHIDTAQAYNNEKGVGVGKESGITRESLFTVTTKIAAEHKDYESATKSIDQSLEAL  
GLDYIDLMIHSPQFWKEWRETDKHFDDQGNLEAWRALEDAQKSGKMKSIGVSNFLEKDLENILKNHVKPAVNQILAHIGNTPFDLIDYCSQSGIQ  
VEAYSPIAHGQALKSDGIQKMAEKYGVSVQQLCIQYLLQLNLVLPKASSKEHLQSNLDFDFVISDEDM SILKSLMFDYGEFSNFPVPSGK

## SEQ ID 779

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CGTCTTGGTCTGGATTATGTGGATCTCTATCTTATCCATTGGCCAAACCCAAAAGCTCTGCGTAACACTTGGAAAGAGGCAAAATGCCCAAGCATGG  
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GCTTGGTCCGTCGAGAAAGGTTTTATTCCTTGCCAAAATCGGTGCATGATGAGCGCATCAAGGAAAAATGCGCTATTTTGTATGTGAGCTTGACA  
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## SEQ ID 780

VMVTVKMTSGYEIPVLGFGTYQAADGEEAYQSTLAAIKAGYRHIDTAAYKNESVGRAIKDSGVLREDLFITTKLWINDAHSYEGAKDALAASLD  
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## SEQ ID 781

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## SEQ ID 782

MILLFFPLHMAVANVRLVRLDLMEIVQIIKLQKM

## SEQ ID 783

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## SEQ ID 784

MKVATFIEPGKMITDTPKPVIEQETDAVIKIVRACVCGSDLWWYRGISKRESGSFAGHEAIGIVEVGTQKVTVDVSKGDFVIVPFTHGGCQCPCK  
AGFDGNCNTNHQAAKNVGYQGYLYRYTNANWALVKIPGQPSDYDNETLNSLLTSLDVMATGYHAAATAEVKEBGTVVVMGDDGAVGLCGVIAAKMLGA  
NRIIAMSRRKDRQELALTFGATDIVEERGEAVKRVLDLTNQAGADAVLECVGTEQSVDTATQIARPGAVIGRVGIPQNPDMNTNNLFWKNIGLRG  
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## SEQ ID 785

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## SEQ ID 786

MNWLITSQPYKKNMKAATYLYSTGNLQLIDKPKPVIKPTDAIVQLVKTTICGTDLHILGGDVPACKEGTILGHEGIGIVKEVGDVNTFKIGDKV  
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GLAALLTVQFFSPANIIMVDLSQNRLEAAKTFGATHTICSGSEBVKAIIDITNRRGVDISMCEVGYPATFDICQKIIISVGHIANVGHVHKPVD  
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## SEQ ID 787

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## SEQ ID 788

MQETTKSIFPKGEKNPYGEFFIGQSYLAALAKSPDGNVSVGNVTFEAGCRNNWHVHLDGYQILLVTEGSGWYQEBGEKAVSLKPGDVIVTDKGVRRH  
WHGAKKDSEFAHIAITAGKSEFYEAUSD EYSRIG

## SEQ ID 789

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SEQ ID 790

MKEKQTAGRRLQLEEFAPFARYNDDILFGEVWAKEDHLTDKTRSIITISALISGGNLEQLEHHLQFAKQNGVTKBEIADIITHLAFYVGPWPKAWSA  
FNKAKEIWI

SEQ ID 791

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SEQ ID 792

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SEQ ID 793

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SEQ ID 794

MLSFQIVEKIPAMILAGVTLENVKSQEGIQQAIGICKTQPDFRFDYSATYQVETSVQAPKGLEIIRIPSATYAVISVKGPMPSLQETWRKIIQGF  
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SEQ ID 795

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ACT

SEQ ID 796

MITQEMKEIINSQALMVAIVDAKGQPNIGPKRSMRLWDDKTFIYNENTDGQTRINIEDNGKIEIAFVDRELLGYRFVGTAEIQTGTYEAAKKW  
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SEQ ID 797

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SEQ ID 798

MITQEMKDLINNQLAMVAIVDAKGQPNIGPKRSMRLWDDKTFIYNENTDGQTRINIEDNGKIEIAFVDRELLGYRFVGTAEIQTGAYEAAKKW  
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SEQ ID 799

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SEQ ID 800

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SEQ ID 801

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SEQ ID 802

MKKHLKTVALLTLTVSVVTHNQEVFLVKEPILKQTOASSISGADYAESGSKLKLINETSQGVDDTVTDLFSDKRTTPEKIKDNLAKGPREQEL  
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QLLERSINKAVLAYNNSAIKKANVKRLEKELDLTGLVEGKGPLAQATMVQGVYLLKTPPLPEYIIGLVNVPYDKSGKLIYALDMSDTIGEGQKDA  
YGNPILNVDENEGYHALAVATLADYEGLDIKTILNSKLSQLTSIRQVPTAAYHRAGIFQAIQNAABAEQLLPKPGTHSEKSSSSSESANSKDRGL  
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SEQ ID 803

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CTGGATGATTTCACTTCATCGACTTAGAAGACTGTCAATCCTGCATGATT

## SEQ ID 804

MTQSDAYLSLNAKTRFRDRDTGNYHFTSDKEAVEQYMI EHVPEPNTMVFTSLIEKLDYLVSNYYESDLLKQYNLEFICQIFEHAYAKKFALNFMGA  
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KRGGGVALCLTNLREFGAPIKGIKNQATGIVPVMKLLSDSFSYANQLGQROGAGAVYLHAHHPEVLTFLDTKRENADEKIRIKSLSLGLVLPDITF  
ELAKANKDMALFSPYDIBERVYKPMDSISITEEYETLLANADIRKTFISARKLFQTIABELHFESGYPYILFEDTVNAKNPHKKEGRIVMSNLCSEI  
AQVNTASQFSEDLTFTKVGHVCCNLGSIINIAMRQADFEKLIANSIRALDRVSRSTDLDSAPSIKKGNAANHAVGLGAMNLHGFLATNHIYYD  
SQEAI DFTDCFFYAMAYYAFKASNLHAKKEGTFEGFSESSYADGSYFYQYTEQNFEPKTRQVKNLLAEYGLTLP SQEDWRKLVS I KEIGLANAHL  
LAVAPTGSISYLSSTPSLQPVVSPVEVRKEGALGRVYVPAYKIDADNYVYKKGAYEVGSEAIINIAAAQKHIDQAI SLTLFMTDQATTRDLNK  
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## SEQ ID 805

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GAGCAGGCCATTTTTGATGCCTATCCTAATGACCTTATCAAGGAGGCCTTTTATTATGCCTATCAACAAGGCTATCGCTTTTAAATCTCATGGGC  
GCTATGAAATTTTACAGTCTTATGCCTTAAACACCTTGGACGGTAGCAGTATCTAGAAACATTTGAAGACCGTGTGTGATGAATGCACCTCTTT  
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CGCTCCTATATCCAAAGTTTTAAGCAAAATTGTCATCGATCTATTATGCTGAGGCAAGACGTCTTAGCAGGCAGCGAACAGTATGACGAG  
GATAGTCTTGTGACAGCTCTTGAGGCTAGTGATGAGACCACACAGAGTGTCAAAGCTGTATGATC

## SEQ ID 806

MSQTNASYLSLNALTRFKKPDGSYHFDSDKEAVRRYLEEHVSPNQMAFNSLEDKLA YLINEGYEQAIFDAYPNDLIKEAFHYAYQGGYRFLNLMG  
AMKFYQSYALKTLDGQYLET FEDRAVMNALFLADGDQTFVFDVIDAILHRRFPQATPTFLNAGKKRRGEYISCYLLRVEDNMESISRAISTSLQL  
SKRGGGVALCLTNLREIGAPIKGIENQATGIVPVMKLLSDSFSYANQLGQROGAGAVYLHAHHPEVLTFLDTKRENADEKIRIKSLALGLVLPDIT  
FQLAKENKDMALFSPYDIKRAYGKMSDISITEEYDKLLANPAIKKTYISARKFFQLIABELHFESGYPYLLFDDTVNKRNP HAKKGRIVMSNLCSE  
IAQVSTPSTFKEDLSFETIGEDI CCNLGSIINIAQAMADAPHFEQLITTSIRALDRVSRVSDLNCAPSVETGNAANHAVGLGAMNLHGFLATNHIYY  
DTKEAVDFTDLFFHAMAYYAFKASCQLAKEGAFAGFSLSTYS DGTYFQAKYLEDQAKPQAKVATLLQDYGFTLPTVADWQALVADIKQFGLANAH  
LLAVAPTGSISYLSSTPSLQPVVSPVEVRKEGSLGRIYVPAYQIDQANAYYERGAYEVGPKAIDVVAQAQKHVDQAI SLTLFMTDQATTRDLN  
RSYIQAFKQNCASIYVVRVQDVLGSEQYDEDSLVTPAGASDETTTECQSCMI

## SEQ ID 807

ATGGATAGTACAGTGAAGGTGGTCTATTTTTCATCGAAATCTAACAATACCCATCGTTTTGTTCAAAGTTGGCTTGTCTAACACAGCGTATTCCA  
TCAGATGGTAGTAGTATATTGGTTACTGAGGATTATATTTTGATTGTGCCTACTTACGCTGGAGGAGAGATGATACCAAAGGCGCAGTTCCAAAA  
CAAGTTGTACAGTTTTTAAATGTTTCGACAAAATCGGGAACATTGCCAAGGGGTTATTTCTTCTGGAATACCAATTTTGGTGACACTTATGCCATT  
GCTGGACCTATTATTGCTCGAAAATTAAATGTTCTTTGCTTCATCAATTTGAATTA CTGGGAACACAAGAAGATGTTACAGGGGTAAGGAGTTA  
CTTTGCCAATTCAGTAGAAAGGATAAA

## SEQ ID 808

MDSTVKVVYFSSKSNNTHRFVQKLACSNQRI PSDGSSILVTE DYILIVPTYAGGGDDTKGAVPKQVQVFLNVRQNRHCQGVISSGNTNFGDITYAI  
AGPIIARKLNVLLHQFELLGTQEDVTRVKELLCQFTRKDK

## SEQ ID 809

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GGCCCTATCATTTCTCAAAAATGTCAGGTCCCTTATTACACCAATTTGAACATTATAGGCAGTCTACAGATGTCAAAAAGGTACAGGCGATTTTT  
GCCCGCTTAAAGCATCACACACGACAAGCAAAAACAAACCAACACCTGATTACAGAAAGGACACACCCATGTCAAAAACCAATGCGTCATACC  
TCTCAT

## SEQ ID 810

MAELIIVYFSSKSNNTHRFVQKLGLPAQRIPVDNRPLEVSTHYLLIVPTYAAGGSDAKGAVSKQVIRFLNPNRNRKHKGVISSGNTNFGDTFALA  
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## SEQ ID 811

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## SEQ ID 812

MQSYDRSQSPLDYALSEKAFPMRSVNWNKLNDDKDLVWNRVTQNFWLPEKIPVSNDLNSWRITLADWQQLITRTFTGLTLDDSVQATVGDIAQI  
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GKLPNTSDIIRLILRDKVIHNYYSYGYKQKQVAKLSVEKQAEKMTFVFDLLYQLIDLEKAYLYELYDGFDLAEDAIRFSIYNAGKFLQNLGYDSFP  
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## SEQ ID 813

ATGACCCCAACATTATATGAACGTTTCGCAATCCCCAATTGAATACGCCCTATCTGAAACACAAAAACAGTTGCGCTCCATCAATTGGAATTACCTT  
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## SEQ ID 814

MTQHYERSQSPIEYALSETQKQLRSINWNYLNDDKDLVWNRVTQNFWLPEKVPVSNDLNSWRSLGSDWQQLITRTYTGTLTLDVQATVGDVAQ  
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RGKMPNTSDIIRLILRDKVIHNYYSYGYKQKVARLSPEKQAEKMAFVFDLLYELIDLEKAYLRELYAGFDLAEDAIRFSLYNAGKFLQNLGYESP  
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## SEQ ID 815

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## SEQ ID 816

MIAMKTIKDWQINICLATYNGQKYLRLQQLDSIIQQGYTDWICLIRDDGSTDDTVAIKEYVNRDSRFIFINSNDRKLGSHRSFYELVNYKKADFY  
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AVGNVAYISDSTVLWRRQVGAESLNNYGRQYGVATFWQMINTSFDRASLIFAQVSDKMSLERKLFSSRFIBLKNAANLMRRIYLLSKLKLRRKSLKE  
TVAMTILLTLGYGKPKA

## SEQ ID 817

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## SEQ ID 818

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IGKLVYLDIPTELYRQHDANVLGARTWSKRMKNWLTTPHHLVNKYWNLITSSQKQALLLDLPLKPNDEHVLTAIVSLLEMPFTRRLATLAAAGGYFRK  
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## SEQ ID 819

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SEQ ID 820

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HIDQEGKVTLPKTVKIGSEVADVPKALTLVDEDKAGNFATVSKLSDLLNKAUVSEKENAIVINSFKFYFDNLKKPEMPFISKKEKVNNLEBIIIV  
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SEQ ID 821

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SEQ ID 822

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## SEQ ID 823

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 GAGCAAAATTAACCTAATAAACCTATTATGCTCAGGCCAACCTATTACAGAGTTTATCAATCTTTTCGATTTCACCTGTCTCAGATATC  
 TATCTAGAAGATAATATCTCTCATCTTGATATGGTTTTATTA

## SEQ ID 824

MWNVKTFDNLTHLFIQYKLRVSFVVEQDCPYQEVDDDLICLHGMNVVDGQLAAYYRLIPEDDKVHLGRVIVNPDFRKKGLGNQLVEYAIKFS  
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## SEQ ID 825

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## SEQ ID 826

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## SEQ ID 827

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 CGTAAGGAA

## SEQ ID 828

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 TQILYSEAVKALDVKEDDLIDAYCGVGTIGLAFAGKVKSVRGMDIIEPAIQDAKENALYMGFTNTHYEAGKAEDIIIPRWYSEGFANALIVDPPR  
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## SEQ ID 829

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 AACGTGTA

## SEQ ID 830

MVVKVKQRIPLKIKRMINGEGIGFYQKTLFVPGALKGEDIFCQITAVKRNFAEAKLLTVNKASKNRVKPACSVYETCGGCQIMHLAYPKQLDFK  
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 IAGIRTIMVRKAQASDVQIIVVSSKEVRLANFIFELTKAFQVKTVALNSNRKSSEIYGDTEILWQGEAIIHEEVLVDYGFALSPRAFYLNPQQ  
 TEVLVGEVVKALDVGSKDHIIDAYCGVGSIGFAFAGKVKSVRGMDIIEPAIEDAQNKAMGMFNAYYBAGKAEDIIISKWYQGYRADAVIVDPPR  
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## SEQ ID 831

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TATTTA

SEQ ID 832

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HTVIQNLIEBKDQLEEDL1YKELDKQYQKLSKKHDQYELKQRI1NALMRKGQYVEDIKSALREYL

SEQ ID 833

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TATTTA

SEQ ID 834

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LQEEQWIDDKLADTYIRQNQLNGDKGPVQLKQKLLQKGIASHDIDPILSQTDFSQLAQKVSQKLFQKQYQKLPKALKDKKITQALLTKGFSYDLA  
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SEQ ID 835

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GCTCAGATGAACCTATCCTACCGATATTGATTATTAAGGAAAAATGTAAAAATATTGGTAGAATGGATAAATGAGAATAAAGGCCCTTTTCA  
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SEQ ID 836

MRLPKEGDFITIQSYKHDGSLHRTWRD1MVLKTTENALIGVNDH1LVTENDGRRVWVTRPAIVYFHKKYWFN1IAMIRETGVSYCNLASPYILD1P  
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SEQ ID 837

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SEQ ID 838

MKLPKEGDFITIQSYKHDGSLHRTWRD1MVLKTTENALIGVNDH1LVTESDGRVWVTRPAIVYFHKKYWFN1IAMIRDN1GVSYCNLASPY1MMD1T  
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SEQ ID 839

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SEQ ID 840

MKKNKELNV1REKQVRKESRK1TMVLTGATVEEAIEKGLQELN1SRLRAHIK1VVSREKKGFLGFGKPKAKVEIEG1ITDEVTDINESVALKN1KNVP  
SSVDVVEEYIEEVDTELEKEDV1SQPELPKIDDKNV1TTS1EAIKIDLLPNIEVAAQVTKYVEN1IYEMDL1DATIETTSKRQ1NLQ1ETPEAGRI  
IGYHGKVLKSLQ1LLAQNYLH1DRFSK1SFSVSINVH1DYVEHRTETL1DFS1KKIARRV1LETNEPYH1MDPMSNSERK1TVHK1TIATIEGVESY1SGNDPNR  
FVVVTKK

SEQ ID 841

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SEQ ID 842

MVLTGKTVEEA1ETGLQELGLSRLKAH1KVISKEKKGLFGFGKPKAQVDIEG1SDKTVYKADKKATRGV1PEDINRQNTPAVNSADVEPEE1KATQ  
RLEABDTKV1VPLMS1EDSPAQTPSNLAETV1TETKAQQPS1PVEESEVPQDAGNDGFSK1IEKAAQEVSDYVTK1IYEMDIEATVETSNRRQ1NLQ1  
ETPEAGRV1GYHGKVLKSLQ1LLAQN1FLH1DRYSKN1FVS1NVH1DYVEHRTETL1DFTQKVAKR1VLESQD1YTM1DPM1SNSERK1IVHKT1VSS1EGVDSY  
SEGNDPNR1VVVLSQR

SEQ ID 843

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CAAAGAGTTAAACGTGCTAAGAGAAAAAGCAAGTAAGAAAAAGAAAG

SEQ ID 844

MKKKLKTFSLILLTGSLLVACGRGEVSSHSAITLWEQIVYAFKSIQWLSFNHSIGLGIILFTLIIRAIMPLYNMQMKSSQKMQEIQPRKELQKK  
YPGKDPNRLKLNDEMOSMYKAEGVNPYASVLPPLLIQLPVLWALFQALTRVSFLKVGTFLSLELSQDPPIYLPLVLAALFTFLSTWLTNKAAVEKN  
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SEQ ID 845

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GCTAAAGAAAAAATGTCATGATGACTGTTATGATTTATGTGATGCCGCTAATGATCTTTTTCATGGGCTTTAACTTGGCTAGTGGAGTAGTGCTC  
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SEQ ID 846

LRKVLRLVKKNIKIARIVPLVLLLVACGRGEVTAQSSSGWDQLVYLFARAIQWLSFDGSIQVGIILFTLITRLMLMPLFNMQIKSSQKMQDIQPELR  
ELQRKYAGKDTQTRMKLAEBESQALYKKGYNPYASVLPPLLIQMPVMIALFQALTRVSFLKGTGFLWVELAQHDHLYLPLVLAALFTFLSTWLTNLA  
AKEKNVMTVMYIYVMPMLIFMGMFNLAGSVVLYWTVSNAPQVQVQLLLNNPKYIAERQRLANEERKRLRERRARKKAMKRK

SEQ ID 847

TTGAGTCTTTTGGTTATTTATGGTATAATAAAACCAATTTAGATAAATGGAGCACTATTTTGAAAAAAACCTATCGGGTAAAAAGTGATAAGGAT  
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ATC

SEQ ID 848

MSLLGLVWYNKTNLNDKWSITLKKTYRVKSDKDFQMFISRGKNVANRKFVYIYLEKEQKHFRVGISVSKKLGNVVRNAIKRKIRHVLLSQKTALQD  
YDFVVIARKGVEELDYQALEKNLIHVLKIAGLI

SEQ ID 849

TTGAAGAAGACCTATCGTGTCAAGCGTGAGAAAGATTTCAGCCATATTTAAGGATGGAAGAAAGTACAGCAAAATCGAAAAATTTGTCATTTATCAT  
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CATGTTATCATGGCATTAGGGCATCAGCTGAAGTCAAGAGATTTCTGTTGATTGCCCGTAAGGGTGTCCACTCTTTGGAGTATCAAGAGCTTCAA  
CAAAATTTACATCATGTTTAAAGTTAGCACAAATGCTTGAGAAAGGTTTGTAGAGTGAAGAAAAACAT

SEQ ID 850

LKKTYRVKREKDFQAIKDKSTANRKFVYIHLNRGQDHFVRVGISVGGKIGNAVTRNAVKKIRHVIMALGHQLKSEDFVVIARKGVHSLEYQELQ  
QNLHHVLKLAQLLEKGFSESEKH

SEQ ID 851

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GAAGCTATTTATAAATCAATATATGAAGGGCTAATATCAAGATAGCATTTTAGATATGATGTCCAATGAATTTCTGTTAGAGAAATGAATGGCAC

SEQ ID 852

MLALYALLLERRNKMKTQKIAVLGPGSWGTLAQVLNDNGHEVRLWGNVVEQIEEINTNHTNQRVFKDITLDSKIKAYTNLEEAINNVDLSILFVVP  
TKVTRLVAKQVANLLKHKVVLHASKGLEPETHRLSTILEEISEQYRSDIVVSGPSSHAEAIVRDITLITAASKDIEAAKYVQLFSNHYFRL  
YTNTDVVGVEAGALKNI IAVGAGALHGLGYDNAKAAIITRGLAEITRLGVQLGADPLTFSGLSGVGLDVTGTSVHSRNRWAGDALGRGEKLED  
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SEQ ID 853

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CTTGATTTAGGTCAAGCCCTATCAGATGTTGATGCGGTGCTTTTGTGTGCCAACTAAAGTAACACGATTAGTTGCTAGACAAGTTGCCGCCATT  
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SEQ ID 854

MTKQKVAAILGPGSWGTLASQVLNDNGHDVRLWGNIPDQIEEINTKHTNRHYFKDIVLDKNITATLDLGQALSVDVAVLFVVPVKVTRLVARQVAAI  
LDHKVVMHASKGLEPETHRLSTILEEIPAHFRSEVTVVSGPSSHAEETIVRDITLITAASKDIEAAKYVQSLFSNHYFRLYTNTDVIGVETAGA

LKNI IAVGAGALHGLGYGDNAAVITRGLAEITRLGVKLGADPLTYSGLSGVGLDVI VTGTSVHSRNWRAGAALGRGEKLEDIERNMGMVIEGIAT  
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## SEQ ID 855

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CTCCATTTTATTTCGACAAAGTCATCCTCGTGGGCTTGGAGATGCTGTGCTACAAAGCAAAAGCCTTCGTTGGTAAATGAACCTTTTGTGTTATGCTA  
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## SEQ ID 856

MKVRKAVIPAAGLGTRFLPATKALAKEMLPIDVKPTIQFIVEEALKSGIEDILVVTGKSKRSIEDHFDNFELEYNLKEKGKNELLKLVDETTGRIR  
LHFIRQSHPRGLGDAVLQAKAFVGNPEFVVMGLGDDLMIDITNNKVIPLTKQLINDFEATHASTIAVMEVPHEDVSAYGVIAPQGGVNGLYSVNTFV  
EKPSPEEAPSNDLAIIGRYLLTPEIFNILETQKPGAGNEIQLTDAIDTLNKTQRFVARKFTGDYDVGDKFGFMKTSIDYALQHPQVKDDLKXYIID  
LGKSLKTSK

## SEQ ID 857

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TACGATGTTGGGATAAATTTGGATTTCATGAAAAATCTATCGACTATGCCTTAGAACACCCACAGGTCAAAGAGGACTTGAAAAATTACATTATC  
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## SEQ ID 858

MTKVRKAIIPAAGLGTRFLPATKALAKEMLPIDVKPTIQFIVEEALKSGIEELVVTGKAKRSIEDHFDNFELEYNLQAKGKNELLKLVDETTAI  
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VEKPQPEDAPSDLAIGRYLLTPEIFGILBRQTPGAGNEVQLTDAIDTLNKTQRFVAREFKGNRYDVGDKFGFMKTSIDYALBHPQVKEDLKXNII  
KLKGALEKSKVPTHK

## SEQ ID 859

ATGATTTTTTTTATGTTATGATAGAAATCTGTTTTTATGTGACTATAAATTATTAGGAGGTTTCTCGTGGAACAGAAAAATATTGGCTTAACT  
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## SEQ ID 860

MIFLCYDRNFLCDYNLLGGSFVNRKIIIGLTLTSLSVLTACGNRSDKSANKSDIKVAMVTNQGGVDDKSFNQSAWEGQLQWKKKGLTKNGF  
DYFQSSNESDHANLDTAASSGVNLIIFGIGFLHDTIEKVSENNKDVKYIVDDIIKGENVASVTFADNEAAYLAGVAAAKTTKTKTVGFIGGME  
GVVVKRFEAGFKAGVKSIDPAIKVAVSYAGSFDDAAKGKTIATQYATGVDVYQAAAGGTGAGIFSEAKTENETRKESNKVWVIGVD RDQSQBGNV  
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## SEQ ID 861

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AAAGCTGTTCACTTAATCAACAAGCAAGTAGCAGATAAAAAATCCCTGGAGGAAAAACAACTGTCTATGGTCTAAAAGATGCGGCTGTGAAATC  
GCAACTACAAATGTTTCAAAAAGAGCTGTTAAAGCTATTAAAGAAGCGAAAGCAAAAATTAATCTGGTGACATTAAAGTTCTCTGAAAAA

## SEQ ID 862

MNKKFIFGLGLASVAVLSLAACGNRGASKGASGKTDLKVAMVTDGGVDDKSFNQSAWEGQLQSWGKEMGLQKGTGFDYFQSTSESEYATNLDTAVS  
GGYQLIYIGIFALKDAIAKAAGDNBKVFIIDIIIEGKDNVASVTFADHEAAYLAGIAAAKTTKTKTVGFVGMMEGTVIITRFBKGFVAGVKSVD  
TIQVKVDYAGSFDAAGKTIIAAAQYAGADVIYQAAAGGTGAGVFNEAKAINEKRSEADKVVWIGVD RDQKDEGKYTSKDGKEANFVLASSIKEVG  
KAVQLINKQVADKKFPGGKTTVYGLKDGVEIATTNVSKBAVKAIKEAKIKSGDIKVPEK

## SEQ ID 863

ATGCTATGAAGAAGTTTCGCTAAAGAGTATCCGACGACAGTACTCTTGGTCAGTCTGACAACCCCTGTTTTTTTATTGATGCAACTAACTTATGGA  
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CCTATCTTTGTTTCATATTGGTTGGGAACATTTTTATTAATAGGTTTAGCTCTGATTTTCGTAGGACAAATGGGGGAAAGTATTGGGGAAGTTT  
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TTATTGTTGTTTCTGCTATAGCAATCGCAGGATTTTGGAAAAATCCTTATTAAACAAGTTGAAAAATCATATCAAGTGATGATCTTG

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AAACAAAATGGTTCTTTATTAATTTAAACTTTGGCAAAGTATTTAGCTTTAATGATATTTATTTATGATATCGATCAGCTTAATAGGCTATCGTTG  
GTA

## SEQ ID 864

MSMKKFAKEYPTTVLLVSLTTLVFLLMQLTYGSAESSQVIFQFGGIQGDYLKAYPTNLWRLISPIFVHIGWEHFLNGLALYFVGQMGESIWGS  
RFLILYLGLMGNIFTLFFTPHVVAAGASTSLFVGSALAIAGYFGKNPYLKQVGSYQVMILLNLFFNIPTPGVSLAGHVGLVGVVLVAIFLT  
KQNGSLFLFKTWQSILALMIFIIVSISLIGLSLV

## SEQ ID 865

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AGACCAGTTGTGGCGATTGGTGACTCCGATATTTATTCATATCGGCTTTGGTCAATTTTTTGTCAATGGATTAACTATATTTTGTGGTCAAAT  
CGTCGAAGACCTCTGGGGCTCACGCCCTTTTTTATTACTTTTATGTTTATCAGGTGTTATGGGCAATGCCCTTTACTTTTGGTTGACTCCTGAAACA  
GTAGCTGCAGGAGCATCGACGTCGTTATTTGGACTTTTGTCTGCTATTGTAGTATTGAGTTTGGGTAAGAACAAGCGTTGAAGAGTTTGGGC  
AAGTCATACCGAGCGTTAATTTAGTCAATTTACTGATGAATCTTTTATGCCAAACGTTGAGTATGGCAGGCCATTTGGCGGTGTCGTGGGTGGT  
GCGTTACTGAGTATAGTTTTCACCACTAAGATGAGAGTGATAACAGTGAAGAAAACCAAGCGAATGTTGGCTTTAGTGAGCTATGTTATTTTG  
GTTGGTGTGTTAGTGCTTGGGTTTTTA

## SEQ ID 866

MILLFRFILDVTIKTISYYYPFRVNRNLNFYSNAGSIWTFSNWCSSYLSWRVWITSKSNARPVVAIGDSDIYSYRLWSFFCQWINTIFCWSN  
RRRPLGLTPLLVLVLSGVMGNAFTFWLTPETVAAGASTSLFGLFAAIVVLSFLGNQALKDLGKSYQTLIVNLEMLNLFMENVSMAGHIGGVVGG  
ALLSIVFPTKMRVITVKKTKRMLALVSYGIIILVGLVLGLFL

## SEQ ID 867

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CGTATAGGTTATGGTGCAGGTTATTTTGATCGCTATTTGAGTGATTTTGAAGGTGATACTATTAGTACTATTTATAGGTGTCAGAGACAGGATTTT  
GTAGAAGAGAAGCATGACGTAGCAGTTAAGGAGGTATTATGTCTA

## SEQ ID 868

MEKKLLRKEVLITLKSQPQAYKSEVDCKLLEAFIKTKAYQNSCVIATYLSFDYEYNTQLLIKQALCDGKRVLPKTYPKGKMFVDYQKDNLRTP  
FGLLEPVNDRAVEKASIDLIHVPLIFNNKGFRIYGAGYFDRYLSDFEGDTISTYRCQRQDFVEEKHDVAVKEVLCL

## SEQ ID 869

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CTAGGTAACCTGGATTTCGAAGAGCTTAGCGCTGAATTGAATGCAGCTCTT

## SEQ ID 870

MDLPENYDKEEFSRIQKAAEKIKSDSEVLVIGIGGSYLGAKAADFLNNHFANLQTAERKAPQILYAGNSISSTYLADLVEYVQDKEFSVNVIS  
KSGTTTPEPAIAFRVFKELLVKYQGEANKRIYATTDKVGAVKVBADANNWETFFVVPDNGGRFVSVLTAVGLLPIAASGADITALMEGANAARKD  
LSSDKISENIAYQYAAVRNVLYRKGYITEILANYEPSLQYFGEWWQLAGESEKGDQKGIYPTSANFSTDLHSLGQFIQEGYRNLFFETVVRVEKPR  
KNVTIPELTEDLDGLYLQGDVDFVNKKATDGVLLAHTDGGVPMNMFVTLPTQDAYTLGYTIYFFELAIGLSGYLNSVNPDPQGV EAYKRNMFAL  
LGKPGFEELSABL NARL

## SEQ ID 871

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CTC

## SEQ ID 872

MSHITFDYSKVLESFAGQHEIDFLQGVTEADKLLREBGTGPGSDFLWGLDLPENYDKDEFARILTAAEKIKADSEVLVIGIGGSYLGAKAADFL  
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ANNWETFFVVPDNGGRFVSVLTAVGLLPIAASGADITALMEGANAARKDLSSDKISENIAYQYAAVRNVLYRKGYITEILANYEPSLQYFGEWWQL  
AGESEKGDQKGIYPTSANFSTDLHSLGQFIQEGYRNLFFETVIRVDNPRKNVITPELAEDLDGLYLQGDVDFVNKKATDGVLLAHTDGGVPMNMFV  
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## SEQ ID 873

GTGAAACATTTAAACAAATCAAAAGGAGTCTCAATGACTGAAAAAATAAGCAGTAGAACTACAGATGTTGCTCTTGCAATTGATACATTGGTT  
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## SEQ ID 874

MKHLTNQKESQMTEKTKAVETTTDVALAIDLVLQNGLKALDEMRLNQEQVDYIVAKASVAALDAHGELALHVEETGRGVFEDKATKNLFACEHV  
NNMRHTKTGVIIEEDDVTGLTLIAEPVGVCGITPTTNPSTAI FKSLSLKTNRPIIFAFHPSAQESSAHAARIVRDAATAAGAPENCVQWIEQP  
SIDATNALMNHDIATILATGGNAMVKAAYS CGKPALGVGAGNVPAYVEKSANIRQAHDIVMSKSFNDGMVCASEQAVIIDKEIYKEFVEFKSY  
HTYFVNKKKEKALLEEFCEFGAKANSKNCAGAKLPNIIVGKSAVWIAEQAGFTVPEGTNII LAECTEVSEKEPLTREKLSPIVAVLKAESTEDGVEKA  
RQMVFNGLGHSAAIHTKADLAREFGTRIRAIRVIWNSPSTFGGIGDVYNAFLPSLTGCGSYGRNSVGDNVSAINLLNIIKKVRRRRNNMQWFKV  
PSKTYFERGSIQYLQKCRDVERVMIVTDHAMVELGFLDRIIEQLDLRRNKVVYQIFAEVEPDPDITVMKGTDLMTFVKPDTIIALGGGSPMDAAK  
VMWLFYEQPEVDFHDLVQKFMDIRKRAFKEPPELGKTKFVAIPTTSGTGEVTPFAVISDKANNRKYPIADYSLTPTVAIVDPALVLTVPGFIAAD  
TGMDVLTTHATEAYVSQMANDYTDGLALQAIKIVFDYLSRVKADFEAREKMHNASTMAGMAFANAFGLISHSMAHKIGAQFHTVHGRTNAILLPY  
VIRYNGTRPAKTATWPKYNYRADEKYQDIKLLGLPAATPEEA VESYAKAVYDLGTRLGIIKMNFRDQIDEKEWKEKSRELAFLAYEDQCS PANP  
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## SEQ ID 875

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AAAGAACATTTCTCGTGAATTTGGCTTACCTTGCTTATGAAGACCAATGTTCCACCTGCTAACCCACGCTCTTCCAATGGTTGATCATATGCAAGAAAT  
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## SEQ ID 876

MTEGHNTVETTSVSVTIDALVQKGLAALAEEMRKLDQEQVDYIVAKASVAALDAHGELAKHAYEETGRGVFEDKATKHLFACEHVNNMRHQKTVGI  
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DGIATILATGGNAMVKAAYS CGKPALGVGAGNVPAYVEKSANIRQAHDIVMSKSFNDGMVCASEQAVIIDKEIYDDFVAFEFKSYHTYFVNKKKEA  
LLEEFCEFGAKANSKNCAGAKLPNIIVGKSAVWIAEQAGFTVPEGTNII LAECTEVSEKEPLTREKLSPIVAVLKAESTEDGVEKA  
SAAIHTADAE LAKEFGTRIRAIRVIWNSPSTFGGIGDVYNAFLPSLTGCGSYGRNAVGDNVSAINLLNIIKKVRRRRNNMQWFKVPSKTYFERDSI  
QYLQKCRDVERVMIVTDHAMVELGFLDRIIEQLDLRRNKVVYQIFAEVEPDPDITVMKGTDLMTFVKPDTIIALGGGSPMDAAKVMWLFYEQPEV  
DFHDLVQKFMDIRKRAFKEPPELGKTKFVAIPTTSGTGEVTPFAVISDKANNRKYPIADYSLTPTVAIVDPALVLTVPGFIAADTGMDVLTTHATE  
AYVSQMANDFTDGLALQAIKIVFDNLEKSVKTADEFAREKMHNASTMAGMAFANAFGLISHSMAHKIGAQFHTVHGRTNAILLPYVIRYNGTRPAK

TATWPKYNYRADEKYQDIALLGLPASTPEEAVESYAKAVYDLGCRVGIQMNFKAQGIDENEKHSRELAYLAYEDQCSPANRPLPMVDHMQEI  
IEDAYGYAERPGRRK

SEQ ID 877

GTGCATTATAGTGATAGCGATACTACAGGGGCTGATTATATGTTAGTAACTGCAAAAAAGCTATTCAAAAAATCAGCTCAACGAGCTGCAAAA

SEQ ID 878

MHYSDDTTGADLYVSNVKKAIQKSAQRAAK

SEQ ID 879

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TGGTATAAAGTTGCTGTTGAACATCCAGATATTGTTATGGCAGTGATGGTGTTCATTATAGTGAAGATAGTCAAGGAGCAGAACTATATGCTCTC  
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SEQ ID 880

MRIKWFSFVRVTGLLLVLLYHFFKNVFPGGFIGVDIFFTFSGYLITALLIDEYTKKESIDIIGFLKRRFYRIVPPLVLMILLTIPFTFLIKKDFIA  
NIGSQITAVLGFTTNIYEILTGSSYESQFIPLHFVHTWSLAEVHFYLFVWGVFVWLLARRKETQKQLRGLLFLISLIGFAISFLSMFIRSFMTSNF  
SLIYFSSLSHSPFFFLGAMFATITGINETTIVRFQKNVRLWPRQYVLAAMIGAFTLLLVLTIVLDFNHITTYLFGFALASLFASIMTYAARVLEHQT  
PDVQEPKAITIYIADISYIYLFHWPFIYIFSQLMSHILAVILTVFSILFATVSYIYIYVPLVQGRKNLLGLEIDCSPPYKWIWGGSLALALLTLG  
TCMIAPKVGKFEKQLLVSSLQQAQSNMERTHTLAAGDANALSDVGIIGDSVALRSSAAFSQIMPQAQLDAVSRNFKFAFDLFNNQIKSKSLSKTV  
VLAAGVNSLDNYSQAVQSFI EALPKGHRLLVLPYNARNAQSVAEARDYGLKLSKKYKYVTIADWYKVAVEHPDIWYSGDVHYSSEDSQGAELYS  
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SEQ ID 881

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TGTCGTAGACGTTTTTACCCTATTTTCCCAACATTAGTATTGATGGTTTTGGTGACAATACCTTTTGTATTTCTGGTTAAAAGCGATTTTAGAGCA  
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AAGCAATTGAGGGGGACTTTGTTCTTATTTCATGCGGAATTTTGGAGTCAGCTTCTTACCATTGTTTGTAGAGCCTTTTTCTGTTGATAATTTT  
TCAACGATATATTTCTCTACATTATCATATATTTCCGTTCTTTTAGGAGCGATGGTGGCTACAATATCTGGTATTCGAGAGATTACCGGACGA  
TTCAAGNNNNNT

SEQ ID 882

MRIKWFSLVRIITGLLLVLLYHFFKNSFPGGFVGVDIFFTFSGFLITALLIDEFSKTKKIDFVSFCRRRFYRIFPPLVLMVLTIPFVFLVKSDFRA  
SIGSQIMTALGFTSNFYEILTGNNYESQFIPLHFVHTWSLSIEVHFVVLWGLTVWLLSKRSKDQKQLRGLTFLISMIGFVGSFLTMFVRAFFVDNF  
STIYFSTLSHIFPFFFLGAMVATISGIREITGRFKXX

SEQ ID 883

ATGAAGAATTTTAAAAAACAACGAACCTCATCTAGAAATATTATCTTTGATAATTATGTTGTTTTTGGTTTTATCAGTATTTACCTTAAACGACTTCT  
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AAAAAGGTCAACCTGATGGACAAGGTCGCCCTCAATGCTAAAAATAAGAAAGTCTATAAGGGGACATTTAAACAGGGGATTTATCAAAAA

SEQ ID 884

MKNFKITRTHLEILSLIIIVVFLSVFTLTTSSQGVFSYDGGKIKYVGSIVNHMTGKGKLYENGDIYKGFVNGVFEGKGTFSVHVGWSTYTGDF  
KKGQPDGQGRNLAKNNKVYKGTQKQGIYQK

SEQ ID 885

ATGATAGATATGAAGATATAGTAAAAAATGGAGTATTACACGGGCGAAGTTGGAAATTTGCTCTCGGTGATTGTGCATATTGGTTTGTGCAATTTCT  
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GAAGGGAAGCTTGTCTACCCCAACGGTGATATCTATGAGGTAAGTTTAAAGGATGGCCTATTGTAAGGAAAAGGAACCTTTTACTGCTAAGACGGGC  
TGGTTATATAACGGGGAGTTTCTATAAAGGACAAGCAAATGGCAAAGGTGTGTTAAAGCAAGAAATAATAAAGTCTATAAAGGGATTTTTAAACAG  
GGGATATTTCAAAAA

SEQ ID 886

MIDMQDIVKKWSITRAKLEIVSVIVILVCAISVFSVRISNKTSLTYDKGRMHYTGIVINHKNMNGEGLVYPNGDIYEGTFKDGLEFGKGTFTAKTG  
WLYNGEFHKGQANGKGVLLKAKNNKVYKGTQKQGIYQK

SEQ ID 887

ATGACAAGATTTTATAGATAGTATGCAATGGGTGACGAAGAATTGGTAGAACGTACACTTCTGTCGCGAGTATTTAAGAGAGTATATTGGACAAGAT  
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AAAACAACCATGGCATTGTGAATTGCTAATGAGTTGGGTGTCAATCTCAACAAACATCAGGTCCCGCAATTGAAAAATCAGGGGATTTAGTAGCC  
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GACTTCTATATTGACATTATGATCGGTGTCAGGAGAACTAGTAGAAGTGTTCATCTAGATTGTCGCGCTTTTACCTTAATTGGTGCAACGACACGT  
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AAACGTGTTTCGAGATTATGCTCAAATCATGGAGATGGTTTGTATAGATGACAATATTACAGATAAAGCATTAACGATGTTAGATGTTGATCAGCAG  
GGGCTTGATTACGTGATCAAAAAATCTTAAGAACCATGATTGAAATGTATAATGGAGGTCCTGTTGGTTTAGGAACTCTATCCGTTAATATTGCT



GAAGAACGAGATACTGTTGAAGACATGTACGAACCTTATTTAAATC AAAAGGTTTTATTATGCGTACCCGTACCGGTCGTGTAGCTACGGTTAAG  
GCATATGAACATTTAGGTTATCAGCGATTTGATAAA

SEQ ID 888

MTRFLDS DAMGDEELVERTLRPQYLREYIGQDKVKDQLKIFIEAAKL RDES LDHVL LFGPPGLGKTTMAFVIANELGVNLKQTS GPAIEKSGDLVA  
ILNDLEPGDVLFI DEIHRMPMAVEEVLYSAMEDFYIDIMIGAGETSRSVHLDLP PFTLIGATTAGMLSNPLRARFGITGHMEYYEENDLTEI IER  
TADIFEMKIT YEAASELARSRGTPRIANRL LKVRDYAQIMGDGLIDDNITDKAL TMLD VDHEGLDYVDQKILRTMIEMYNGGPVGLGTL SVNIA  
EERD TVEDMYEPYLIQKGFIMRTRTGRVATVKAYEHLGYQRFDK

SEQ ID 889

GTGCTGTTGACTGGTGGCGATTATAATAAAGTAGGCCACTGCTCTCTTTTACTTTTATGTTATAATAGTCTTATGGCTAGAAATTTAGACAATAAT  
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ATGTATGAACCTACTTAAATTCAAAAGGCTTTCTCATGCGAACACGAACAGGTCGTGTAGCGACGCAAAAGGCTTATCGTCATCTTGGCTATCCC  
TATCAAAACACT

SEQ ID 890

VLLTGGDYNKSRPLLSFTLCYNSLMARILDNNVMGNEEFSRDLRPQYLHEYIGQDKVKEQFAIFIEAAKRRDES LDHVL LFGPPGLGKTTMAFVI  
ANELGVNLKQTS GPAVEKAGDLVAILNELEPGDILFI DEIHRMPMSVEEVLYSAMEDFYIDIMIGAGDTSR SIHLDP PFTLIGATTAGMLSNPL  
RARFGITGHMEYYQEKDLTEI VERTATIFEIKIDHEAARKLACRSRGTPRIANRL LKVRDYAQIIGDGIITAQITDRAL TMLD VDREGLDYIDQK  
ILRTMIEMYQGGPVGLGTL SVNIAEERNTVBE MYEPYLIQKGF LMRTRTGRVATQKAYRHLGYPYQNT

SEQ ID 891

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GAAGTCTATCAACAGGAGACATTAATTTTGGTGTTGGAGGTTTTATGCGAATGCTTTGATAAAGTAAATATAAAGAAAAATATACTCTTAATGAT  
TTGATTATCATAGATTTGTTTTTAACTTGTGCAGTTGTATCTAAATTTAACAATAGAGCATTTACTAAAGAAGTATTTCAAACCTATATGTAAACT  
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AAATACCTTCAATACAAATTGACAAATGATATAAAGTCTGCAGAAAATGCTTACCAACAATCAATTATGTTTTCAAAAATGATTGATGACAAGCATCTA  
ATTA AAAAATTAGAATTGGAGTGGCAAGAAGATATAACAGGACAT

SEQ ID 892

MLKHFGSKVRNLRVTRNITREDFCGDETELSVRQLARIESGQSI PNLTKAHYIAKQLNVKLDILTGGESLELPKRYKELKYILIRIPTYADAERLK  
LRECFDHFIEFEYDNLPEDECLAIDSLQAKFEVYQTDINFGVEVLCECFDKVKYKBYTLNDLIIIDLFITCAVSVKFNRAFTKEVFQTICTK  
LISQNHKLTAEDLFWFNHVLNLCVFVGLCLNSEECLEAMLEVSRTQMVSTHDFHKMPLYFMYQWKYFITIDNDIKSAENAYQQSIMFSKMIDDKHL  
IKKLELEWQEDITGH

SEQ ID 893

ATGTTAGAACATTTTGGTGGAAGTAAAGTGTAAAGACTTGAAAAGAGGATTAGTCGCGAGGACTTGTGTGGGGATGAGTCTGAACCTTCTGTT  
CGTCAATTAGCAGCGGATAGAACTAGGTCAATCCATACCAAGTTTAAAGTAAGGTTATTTTTATTGCAAAAGCCTTAAACGTTAGTGTGGGTTACTTA  
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GTACGAGAAGAGCAGTTTGATGAAATTTTGGAGGATTATTATGATAAATTACCAGAGGAAGAGAAAAATAATCATTGATTGTTTACAGGCAACTTTA  
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TTAATACTTCTAGAAATTTATTTAGCTTATCTTGATATTGAGGGAATGGATGGACATATTTCAGATAAGATTTTATTGATTCTTTATGATTAAT  
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CTTGATAAATTTAGAAAAGCGATTGAAATGAGTCAAAAAATTTATGGCGAAAATTCAGATTGGAATAGAATGCCTATTTTAAACTAATAGAATGG  
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GAAAACAAGTTAATTCAGAGTGGGAAAAAGATGTTAAAGTTAT

SEQ ID 894

MLEHFGGKVKVLRLEKRISRELD CGDESELSVRQLARIELGQSIPSLSKVIFIAKALNVSVGYLTDGADLELPKRYKELKYILIRIPTYMDDGKLQ  
VREEQFDEIFEDYDKLP EEEKI IIDCLQATLDLTLLSENTNFGIDLLQEYFNQIKTKVFRQNDLILLELYLAYLDIEGMDGQYSKIFDYSLLDN  
LSEQFEQFELDELFIYVKNKIIDISLSLKNRNLNLEKAIEMSQKIMAKIQDWNRMPI LKLI EWKYFLIKQKDIIKAEQSFMKACLFQAQMTADQYL  
ENKLIQEWEKDVKSY

SEQ ID 895

ATGATCGAACGTTATTACGCCCTGAGATGGCGGCAATTTGGACAGAGGAAAAATAAATACCGTGCTTGGTTGGAGGTCGAGATTTTGGCTGACGAG  
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GACACGCGTCAGCATGTGGTGCTTTCACTCGTGCCTTTCTGAGACGCTTGGTGAGGAGCGCAAGTGGGTGCATACCGTTTGACGTGCGATGAC  
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GTGCTTGAAGCATTGCAACTTCTATCGAACGTATGGCGACAGAGATTCTGTGGTCTGCAAAAATCAGAACACGTTGAAGTGAAGAAATCTTTGCC  
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GTGACGGCTTATGAGAACGTTGGCACTTTGGCAGGAGCGTGATTTTCTGCTACTCTGCTGAGCGTATCATCACACCTGACACAACGATCTTGATT  
GACTACATGCTCAACCGTTTGGCAATATCGTTAAGAAATGACTGCTCTCCCGGAAAATATGATGCGCAATGGAATCAACTTTGGTTGATT  
TATAGTCAACGTGTTATGCTCAAATTTGATTGAAAAAGGAATGACACGAGAAGAAGCTTATGACTTAGTTCAACCTAAGACAGCTTATCTCTGGGAC  
AATCAAGTGGATTTCAAACCACTTTTGAAGAAGACACCAAGTTACCTCTTGTCTTACACAGGAAGAAATTTGATGAACATTTTAAATCCGATTTAT  
TACACAAAACGTTGATGATATTTTGAAGACTAGGATTAGAAAAA

SEQ ID 896

MIERYSRPEMAAIWTEENKYRAWLEVEILADEAWAELGEIPKEDVAKIREKADFIDRILEIBQDTRHDVVAFTRAVSETLGEERKWHVHYGLTSTD  
VVDYAYGYLYKQANDIIRRDLENFTNIVADKAKEHKFTIMMGRTHGVHAEPTTFLGLKLATWYSEMKNRIERFEHAAAGVEAGKISGAVGNFANIPP

FVEQYVCDKLGIRPQEIISTQVLPRLDHAIFYFAVLASIATSIERMATEIRGLQKSEQREVEEFFAKGQKSSAMPHKRNPIGSENMGTGLARVIRGHM  
VTAYENVALWHERDISHSSAERIITPDITLIDYMLNRFNIVKNLTVFPENMMRNMESTFGLIYSQRVMLKLEKGMTREEAYDLVQPKTAYSWD  
NQVDFKPLLEEDTKVTSCLTQBEIDELFNPIIYTKRVDDIFERLGLBK

## SEQ ID 897

ATGCTAGAACGTTATTACACGCCCTGAGATGGCGCAATTTGGACAGAGGAAAAATAATACCATGCTTGGTGGAGGTCGAGATTTTGGCTGACGAG  
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GACACGCGTCACGATGTGGTGGCTTTTACGCGTGCGGTTTCTGAAACGCTTGGTGAGGAGCGCAAGTGGGTGCACTACGGTTTGACCTCGACTGAC  
GTGGTGACACTGCCTATGGTTACCTCTACAAGCAAGCTAACGACATTATCCGTGCGGATCTTGAGAAATTTACCAATATCGTGGCAGACAAGGCG  
CGTGAGCACAATAATGACCATCATGATGGGTGCTACCCACGGTGTTCACGCCGAGCCAAACGACTTTCGGTCTTAAGTTGGCGACTTGGTACAGCGAG  
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GTGACAGCTTAATGAGAACGTCCTACTTTGGCATGAGCGGTGACATTTCCGACTCATCAGCTGAGCGTATCATCACACCTGACACCAACTATCTTGATT  
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AATCAAGTGGATTTCAAACCACTTTTAGAAGAAGACACCAAGTTACCTCTTGTCTTACACAAGAAGAAATGATGAATCACTTTAATCCGATTAT  
TACACAACACGCTTGATGATATTTTAAAGCGTTTAGGGATT

## SEQ ID 898

MLERYSRPEMAAIWTEENKYHAWLEVEILADEAWAELGEIPKEDVAKIREKADFDIDRILEIBQDTRHDVVAFTRAVSETLGEERKWHVHYGLTSTD  
VVDTAYGYLYKQANDIIRRDLENFTNI VADKAREHKMTIMMGRTHGVHABPTTFGLKLATWYSEMKNRIERFEHAAAGVEAGKISGAVGNFANI PP  
FVEEYVCDKLGIRPQEIISTQVLPRLDHAIFYFAVLASIATSIERMATEIRGLQKSEQREVEEFFAKGQKSSAMPHKRNPIGSENMGTGLARVIRGHM  
VTAYENVALWHERDISHSSAERIITPDITLIDYMLNRFNIVKNLTVFPENMMRNMESTFGLIYSQRVMLKLEKGMTREEAYDLVQPKTAYSWD  
NQVDFKPLLEEDTKVTSCLTQBEIDELFNPIIYTKRVDDIFKRLGI

## SEQ ID 899

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## SEQ ID 900

MNRIINRDLIPRISKISKNNKEKDLLSIAYITWLIIFII FALGVVTVNDLKPMFNQLIVNLLNIYYMEAFILGMSYLYQNLPSYFDFWSIFVEAI  
NLFVKVFLIAFIPSVIRKVLKESFFNEVVILLGAIVTIVSFHLYLEILIVVGLILLIAFVSIGKNRVYNFQNLNLYFEEVIWNYFEENPVKIK  
EKSLIIKFLLTISFVFIIDFAMVRLNLFNIKFTILACSAILLAWLYQKNSVTEFPFLKLVIYIFIIATLIGNLKNEILSILETPLLFIISIFTM  
DRIIALSKEMRDLIISKSLFYDHNENIKPSILLSEIKEIKYLENVDIGELELVROMVIRLRLELEEEFLILSDIYMKNGYEKYIQFVQGNVYFIN  
LELDKIPNYTNLKLILBISFDHNNQKIFIPKLYEYIYILISLGEVEKAKEILKEVSDYLTEESLNYFEKEYDKAKGSN

## SEQ ID 901

ATGTCACCACTTATAGGGAGCGACAGTCACGCCAGCCTTATTGCGAGAAAGCTTTTCAAAGATACGGTTTGTAGAAATGCGGAGCAGATCAG  
TCCCTGCGGTAGCTGACAGCTGACACACCGCATCCAGACCATCGGCATCGACATTCTCAAACCTATAGGTCAAACATCGCAACGCGCAGCTA  
ATGTTCCCAAAGCCTCAACATCATCGTAAGGTGCCACAATCACCTCGC

## SEQ ID 902

MSPPYRERQSRQPYLPESLFQRYGFEKCGADQSPA VADQLTQRHPDHRHRHSQTHRSKHRNAQLMFPKPKQHHRKVPQSPR

## SEQ ID 903

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GGTCATGGGCAAAAGGTTATCCGCTCAGCAGAAGACCTGCCAGAGGCGCAGCAATTAGCCAACCTCAGCTCAGTGTGTCTTGGAAGAGTTTGTCAAC  
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AAAACCATCGTACAGCTCGCATCTCAGACCACTAGCTGACAGGCTAAGGAAATGGCTGTGCGATGTTGCCAAGAACTGCCAGTATGCCAGTCAAGAAC  
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GGACAACATGTCCAGCAGGCAATTGACCATGTTGCCCAAAACCTAGCGCCACCTCCACATGTATGTTAAACTAGAAGCAAAACATAACCGCAAA  
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## SEQ ID 904

MRNKEKSQRSQAMNSFKTIGIIGGGQLGQMAIAAIYMGHKVITLDPASDCPASRVSEIVAPYDDVEALGTLAARCDVLTYEENVDADGLDAVV  
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FDLEISVIVSGNGQDVTVFPVQENIHRNNILSKTIVPARISDQLADKAKEMAVQIAKKLQLSGTL CVEMFATADDIIVNEIAPRPHNSGHYSIEAC  
DFSQFDTHILGLVGLAPLPPIKLHAPAVMFNVLGQHVQQAIDHVAQNPSAHLHMYGKLEAKHNRKMGHVTVFSVPDEVEEFEEERMDF

## SEQ ID 905

ATGAGGAACAAGGAAAAATCGCAGAGGAGTCAAGTGGTGAACCTCATTTAAGACCATTGGGATTATCGGTGGTGGTCAGCTGGGGCAGATGATGGCC  
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GTCGCTCCCTATAAGGTGGTGACGCTTAGCCTTGACCTAGGGGGGCTTGATTTGACCAAGACCTATGTCTCAAGACAGAGACAGGTGGTTATGAC  
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## SEQ ID 906

MRNKEKSQRSQVNSFKTIGIIGGGQLGQMAIAAIYMGHKVITLDPASDSPASRVSEVIVAPYDDVEALGQLAARCDVLTVEFENVADGLDAVV  
SACQLPQGTDLRLISQNRIVEKDFLANKAGVTIVAPYKVVTSDDLGLDLTKTYVLKTETGGYDGHGQKIRSAEDLPEAQQLANSAQCVLEEFVN  
FDLEISIVISVNGKDVTFVFPQENIHRNNILSKTIVPARISDQLADKAKKTAVQIAKKLQLSGTLCVEMFTTADDIIIVNEIAPRPHNSGRYSIEAC  
FDSQFDTHILGLVGLAPLQIQLHAPAVMLNLVQLQHVQATDYVAKNPASHLHMYGKLEAKHNRMGHVTVFAKDADEVKEF

## SEQ ID 907

GTGGGTACGTCTTCGAAATCAAAGATTTCGGACTTACCGCATATTTTTCTACGAAAATTTTCGACAAGTCGAAACGTCCTCTTGTATCTTAATATT  
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GCAGGTGAGCAGCCCACTTGGCGGGTATGGTAGCAGCTAAACAACCCCTGCCCTGTTTATCGGTGTGCTGCTCAAAATCAGCTGCCCTCTCAGGTTTG  
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CTCATT

## SEQ ID 908

MGTSSKSKISDLPHIFLRKFSTSRNVPLYNIMQPIISIIMGSKSDWTTMQKTAEBVLDNFGIAYEKKVVSahrtpDLmfkhAEeARGrGikIIiAG  
AGGAHLPGMVAAKTTLPVIGVPVKSRALSGLDLSYIVQMPGGVPVATMAIGBAGATNAALTALRILSIEDQNLADALAHFHEEQKIAEESSE  
LI

## SEQ ID 909

ATGCTAAAGCACCTAGTCGCCCTGACGTGGGTTCTGCTTCGAAATCAAAGATTTCGGACTTACCTCATATTTTTCTACGGAAGTTTCGACAAGTC  
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GTTCTAGACAACTTTGGCATTGCTTACGAGAAGAAAGTCGTCTTGCACCCGTACGCCAGACCTCATGTTCAAGCATGCTGAGGAAGCACGTTGGT  
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## SEQ ID 910

MLKHLVALTWVRLNRFRITYLIFYGKFRQVETPLCILIMKTPIIISIIMGSKSDWATMQKTAEBVLDNFGIAYEKKVVSahrtpDLmfkhAEeARG  
RGikIIiAGAGGAHLPGMVAAKTTLPVIGVPVKSRALSGLDLSYIVQMPGGVPVATMAIGBAGATNAALTALRILSIEDQNLADALAHFHEEQ  
KIAEESSEGLI

## SEQ ID 911

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GCTTGGACCTTATTGGTCTCTGATGATGCGCTAGCAGCTGGTATCGTTGATGGTTTTAATAGTGTGCTGGAAGTCAAGGATTTGGTCCAAACCAAGGCA  
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## SEQ ID 912

MKLLVVGSGGREHAIKLLASKDQVDFVAPGNDGMTLDGLDLVNIGISEHSRLIDFVKENEIAWTLIGPDDALAAGIVDGFNSAGLRAFPGPTKA  
AAELEWSKDFAKEIMVKNVPTAAYGTFSDFEKAKAYIEEQGAPIVVKADGLALGKGVVVAETVEQAVEAAQEMLLDNKFGDSEARVVIIEEFLDGE  
EFLFAFANGDKFYIMPTAQDHKRAYDGDGLNTGGMGAYAPVPHLPQSVDVAVETIVKPVLEBGMIAEGRPYLGLVYAGLILITADGPKVIEFNRSR  
FGDPETQIILPRLTSDFAQNIDIMMGIEPYITWQKDVTLGVVASEGYPLDYKGVPLPEKTDGDIITYYAGAKFAENSKALLSNGGRVYMLVT  
TEDSVKAGQDKIYTQLAQDQDTGLFYRNDIGSKAIKE

## SEQ ID 913

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AATAGCAGAGCTGCTGCTTCTCAAACGAGGAGCGTGTCTATGCTGCTGACCAAGAGCAGCGTCAAAGCAGGGCAGGACAAAATCTATACCCAA  
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## SEQ ID 914

LANRVFLISRIVVYHIFMTFQLLITNTLCKKANVYDIISNYNTEKVDVLKLLVVGSGGREHAIKLLASKGVDQVFPVAPGNDGMTLDGLDLVNI  
VVSEHSRLIAFAKENIEIWFAGPDDALAAGIVDDFNSAGLRAFPGPTKAAAEBSWKFADKEIMVKYNVPTAAYGTFSDFEKAKAYIEEQGAPIVV  
KADGLALGKGVVVAETVEQAVEAAQEMLLDNKFGDSGARVVEEFLDGEFSLFAFANGDKFYIMPTAQDHKRAFDDGKGNPTGGMGAYAPVPHLP  
QSVVDTAEMIVRPLEGMVAEGRPYLGLVYLITADGPKVIEFNSRFDPETQIILPRLTSDFAQNIIDIMMGIEFYITWQKDGVTGLGVVVAS  
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## SEQ ID 915

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GAGCGAATTTTATAGAAACCATATTATCAACGC

## SEQ ID 916

MTIYDQIESALDMLTDLERIEACYFMGQPIISKDALASTIVTKQLHISQAALTRFAKKCGFKGYREFVFEYLSKHETISQQLYGLQNDNTKKVFMNY  
QEMISKSADIIDEEQLLEVSHMIBQADRVYFYGKSSSLVAKEFKIRLMRLGVICEALDDTDSFSWTNSIVNDRCLVIAFSLSGNTNSVIGALKIA  
SCHGAKTVLFTKQPHITIDYAFDKIIQVASARHLDYGNRISQPIMLMVDIIYAQFLDINKIEKERIFRETIQIR

## SEQ ID 917

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## SEQ ID 918

VCFAMPKNHRLITKIEASLEHMTSLEKGIHFFITDITLPOELTASEIVKRLHISQAALTRFAKKCGFTGYRAFAFDVLHSLQESQETFSIHLEL  
TKRVLMDYDALINKTYELVNEEKLNLAKLIDSSERVYFFGKSSGLVAREMKLRFMLGLICDAYSDDTGWANSVLNENCLVFGFSLSGKNTNS  
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## SEQ ID 919

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## SEQ ID 920

MIETMSLDDMREYLQGDQIPEDFDDFWKKQTMKYQGNIEYRLDKDFNITFAQYDLHFKGSNNISIVYAKCLFPKTNKPYPVVVFYFHGYQNSPDPW  
SDQLNYVAAAGYGVVMDVRGQAGQSQDKGHFDGIVTKGQIVRGMISGPNHLFYKDIYLDVFLIDIIATLESVDNSQLYSYGVWSQGGALALIAAAL  
NPKIVKTVAVYVFLSDFRVLDLGGVSEPYDELFRYFKYSDPFHKTENNVLKTLAYIDVKNFAHRISCPVLLTALKDDICPPSTQFAIFNRLIST  
KKHLLLPDYGHDPMTVQVKDHIQDLTGSQFTKQKIE

## SEQ ID 921

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GAAGACACTTATCAAGTACGCACAGAAATTTGAAATGATGTTAATTTGTGACAGGATTAGCTGAAGCTGTCTCAGGTAGTGCCAAAGATAGTTCAATA  
CGCCTTTGCTTACTATTGGAACAGGTATTGGTGGTTGCTGATTATTGATAAAAACAGTTTTTTCATGGCTTTAGTAATCTGCTTGTGAAGTTGGC  
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## SEQ ID 922

MTRTVAIDIGGTMIKHGIVDNLGCIVEASELATEAYKGGPILQKVCQIIDNYLAEGSIDGIAISSAGMVDPEBGCIFYSGPQIPNYAGTQFKKVL  
EDTYQVRTEIENDVNCAGLAEAVSGSAKDSSIALCLTIGTGIGGLIIDKTVFHGFSNSACEVGYMHLSDGDFQDLASTTALIAADVAKAHGDEISR  
WDGRRIFQBAKKGNEKCIASIDRMINYLQGGIANMVYVNVNPEKVVLGGGIMAQDYLDQKLSLKRNLVTSLEAKETAIVFAQHENQAGMLGAYYH  
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## SEQ ID 923

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SEQ ID 924

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SEQ ID 925

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SEQ ID 926

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SEQ ID 927

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SEQ ID 928

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PDEQFLGGRLMGAAAGTGGTYGAMPELFLRLNQLIADKLEKAKALQYITINEIIGVLVSAHGNMYGVIKEVLRINEGLDIGSVRSP LAELVEEDRV  
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SEQ ID 929

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SEQ ID 930

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SEQ ID 931

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AATCTCTTATTGTCTTGCTGCTGCCCTTCCCTTCTAACGATTGGGGTTGCTAAAAAGGCTTGTATGCGAGTTTGTGGATTGGCGAGAAGGTCAA  
GTTAGTCAGCTTGTTACTACTTATAGCTCTCATTTTAAATATTACTTTAAAAAGTGGGCTACGCCTTGGCCTTATTGAGCTTGGGATAATGACTATT  
TGTCTCTTAGATCTTTTCTTAATTCGAAACCAATCAGGCCTAGTTTTCAGGGTTTAAAGTACTTTGCGTGTGCTGTTTTATTTTGGTGGTTATA  
CTCTTTTGTACGCTTATCCTCAGGCCGTCAAAGAGACCTTTCCCTATCTACGCTGTTTAAAGCGAAGCTTTTATTAGCAGGACTCTTTTTCCTA  
TGGAGTTTGGCTTCTTGGCTTTATTGTCTCAGCATATTAGCCTACAATTTGCTCTGTTAACGTTATTGGAGGCGTGTCTTTGCTAGCTATC  
ATCGGCATCAGTAGTCTAATCTATCTACTTGATTATCATGGAATCTCTTCTTAGCGGATTCCCACTTAATAATGACATTGAA

SEQ ID 932

LTSKKQGLLHSLFKLDSKWMRASAALFDLLVFNLLFVLSCLPLLTIGVAKMALYASLLDWREGQVSQLVTTYSSHFKYFKSGLRLGLIELGIMTI  
CLLDLFLIRNQSGLVFQGFVKVLCVAVLFLVLVILFLYAYPQAVKRDLSSLSTLTKRSPFLLAGLFFPWSFAFLAFICLTI FSLQLSLLTLFGGVSLLAI  
IGISSLTLYLYLIMESLLRRFPLNNDIE

SEQ ID 933

ATGATTTACGATCATTTATTGAATTTAACGCATTATAAGATATAATTAATCCTAATTTAGATTATTAGCGATTGATTATCTACTAAGTCATGATTTAAGG  
AATTTAGATATAGGCCACTATCATATTAGCCAGAGTGATACTACGTGCAATCAATCACTTAGTGAGTCATTGATCATATTTTGAATAC  
CATAAAAAATACCTTGATATACATTATGTCAATTGAAGGACATGAAGTTATCAAAATTTGGGAAAAGGTGATAAGGTGAGGAGGAATACCTTAGGC  
GATATAGGATTATCAAGTGCTCAGAAAGAGACTTCTTTTGATTGAGAGATAATTATATAGCCTTCTTTTCCAGAGAAGCTCATCAGCCAAAT  
GGTATGGGAAGCTAGGTAATTATGTCAAAAAGGGGTATTGAAAGTGTTAATGGCG

SEQ ID 934

MIYDHLNLTHTYKIDINPNLDLAIDYLLSHDLRNLDIGTYHISPEVILMVQSNQLSSEFDHIFEYHKRYLDIHYVIEGHEVIKLGKDKVEVEEYLG  
DIGFIKSEETSFDLRDNYIAFFFPPEAHQPNMGSLGNVYKKGVLKVLMA

SEQ ID 935

ATGAAAAAGAAAAACATTAGTGCTTTATAACTTTTTAACGGCTCTTATCCTTTGTCTTTTGACAGTGCTTTTATCTTTCCATTTTATTGGATTATG  
ACAGGAGCTTTTAAATCTCAACCTGATACTATTATCATCCCCCACAAATGGTGGCCCAAAGCACCAGCCTTAGAAAAATTTAAAGCTTTAACTGTA

CAAAACCCAGCTTTTGAGATGGCTTTTGAATAGTGTCTTTATCTCAATTATGACAAATGTTCTAGTTTGTGTACATCGTCAATGGCAGGCTATGTT  
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AGAATTATCAATTTTATGGGGATACATGATACCTTATGGGCGGTATTTTACCTCTTGTGTTGGCTTGGCTTTTGGGGTCTCTTGTATGAAACAGTTT  
TCTGAAAAATATCCAAACAGAAATTACTGGAATCAGCTAAAAATGATGGTTGTGGAGAGATTGCAACATTTATTAATGTAGCATTTCCAATTTGTCAAA  
CCTGGATTGTGCTGCCCTAGCTATTTTACATTTTATCAATACTTGAATGACTATTTTATGCAATTAGTTATGCTAATCTTAGAAATAATCTGACC  
ATTTCTCTTGGGGTAGCTACTATGCAAGGCTGAAATGGCAACAACTATGGCTTAATTATGTCAGGTGCAGCCTTAGCTGTCTTCTTATGTGACA  
GTATCTTAGTTTTCAAAAATCCTTACTCAGGGGATTACAATGGGAGCTGTTAAAGGA

## SEQ ID 936

MKKKTFSAYNFLTALILCLLTVLFIFPFYWIMTGAFKSPQDTIIIPPQWPKAPTLENFKALTVQNPALRWLWNSVFISIMTMFLVCCTSSMAGYV  
LAKKRFYQKILFSLFIAAMALPKQVVLPLVRIINFMGIHDTLWAVILPLVWGPFGVFLMKQFSENIPTELLESKIDGCGEIRTFINVAFFPIVK  
PGFAALAIPTFINTWNDYFQMLVMLTSRNLITISLGVATMQAEMATNYGLIMAGAALAAVPIVTVFLVFKSFTQGITMGA VK

## SEQ ID 937

ATGACGAAAAAGAACTAACCGCATCAGATATCTTAACCACTGTGATGCTATGTGTTTGGACCATTTTGTATTATTTTCCATTTTATTGGATTATG  
ACAGGAGCATTTAAGGCTCAAGCCGATACCATTTATGATTCCACCGCAATGGTGGCCAAAGGCGCCTACTATTGAAAATTTTAAGGCTTGGTAGTG  
CAAAATCCAGCCTTAAATGGTTGTGGAATAGTGTCTTTATTTCCGGTGGCGACCATGTTCTTGGTTTGTGGAACCTCCTCGTTGGCTGGCTATGCT  
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CGGATTGTTAATTTATGGAATCCATGACACTTTGGCGGCTGTTATTTTGCCTCTTGTGGGCTGGCCATTTGGTGTCTTCTTATGAAACAGTTT  
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GTCCTTCTTGTCTTCCAAAAATCATTACCAAGGCATTACTATGGGTGCTGTGAAAGGT

## SEQ ID 938

MTKKKLTASDILTVMCLVLTILFIFPFYWIMTGAFKAQADTIMIPPQWPKAPTLENFKALVVQNPALKWLWNSVFISVATMFLVCGTSSLAGYA  
LAKKRFYQRLLFIFIAAMALPKQVVLPLVRIINFMGIHDTLWAVILPLVWGPFGVFLMKQFSENIPTELLESKIDGCGEIRTFINVAFFPIVK  
PGFAALAIPTFINTWNDYFQMLVMLTSRENLTISLGVATMQAEMATNYGLIMAGAAMAAPVPIVTVFLVFKSFTQGITMGA VK

## SEQ ID 939

ATGCGTACTAATAAGTTAAAGATGAGGGAAACGATGATAGCTTATGCTTTTCTAGCACCTATTCTCTTATTTTCTTAATTTTGTCTTTCACCG  
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ATTTTCATGAAATCCTTGATAAATCAGTAATCATTTGTGATTGGCTCTGTGCCAGTAGTGGTTTTCTTCTCACTTTTGTGTGCTGCCAATACTTAT  
GAAAAAATGTTTTTTCAGCTCTTTCTACCGTTGTGCTCTTCTTCTGCCAGTAGTAACCTGGTAGTGTTCAGTTACAGTTGTTTGGAAATGGATT  
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GCTGCGCGTGTGATGGAGCCAATGAAATGCAAGTTTTTGGCAAATTAATGGCCGAGTCTCTTACCACTACACTCTATATTGCAGTTATAACA  
ACAATTAATTCATTTCAATGTTTTGCCCTTAATCCAGCTCCTAACATCTGGTGGACCAATTAATCAACAAGCACTTTGATGTATTATCTTTATGAA  
AAAGCCTTTAACTATCAGAAATATGGCTATGCTAATACTATGGGAGTATCTCAGCAGTAATGATGCTTTAATAAGTTTGGCTCAATTTAAGATC  
TTAGGAATGATGTGGAATAT

## SEQ ID 940

MRTNKLKMETRIAYAFAPILLFFLIFVFPAPVMVGFVTSFFNYSMTQFTF IGLANYNRMFHD SIFMKS LINTV IIVIGSVPVVVFSLFVAANTY  
EKNVFSR SYRCVFLPVVTVGSVAVTVVWKWIYDPM SGILNYILKSGHVI EQNISWLGDKHWALLAI I ILLTTSVGQPI ILYIAAMGNIDNSLCE  
AARVDGANEMQVFWQIKWPSLLPTTLYIAVITTTINSFQCFALIQLLTS GGPNYSTL MYLYLEKAFK LSEYGYANTMGVFLAVMLAISFAQFKI  
LGNDVEY

## SEQ ID 941

GTGTTCTTAACAAGTGGCTTCTTTTCAATGCACATGTCAAATGGTCACTGGAAGAAGCTTTTCTTTTGTAGAAAAGTTGAACAGAAAAAGAGGTA  
TTTCAAGTGAACGTCATAAATTAATAATGAGAGAGACGCTCATCTCATACGCTTTCTTAGCTCCGGTCTTGGTTTCTTGTGATTTTGTCTTG  
ATACCGATGATTATGGGCTTTGTGACGAGCTTTTCAATTATCCATGACAGAGTTTACCTTTGTGTTTGTCTAATTATGCTAGGATGTTTCAA  
GATCCATTTTTCATGAAGTCTCTTATTAACACCTTGATTAATGTTATGGTTTCGGTACCTGTTGTAGTTTCTTTTCCCTCTTTGTGGCGGCTAAA  
ACCTACGACAAAAATGATGTGGCGCGTTCGTTTACC GGCGAGTTTCTTCTGCCTGTTGTTACCGGAAGTGTTCGGGTGACGGTGGTTTGAAA  
TGGATCTATGATCAATCAGGATTTTGAATTATGCTTAAATATGCTTAAATATGCTGATTGAGCAAAAATATTAGTTGGCTGGGAGATAAGCCTGG  
GCTTTGTTGGCTATTATTGTTATTTTATTAACCATCTGTTGGGCAGCCTATTATTCTATATATTGCTGCTATGGGAAATATTGATAACTCTTTG  
GTAGAAGCTGCGCGTGTGGACGGCGCCACAGAATTCAGTGTTTTGGAATATCAAGTGCCCAAGTCTGCTGCCAACCACTTATATATTGCTGTC  
ATAACAACCATTAATCTCTTCAATGTTTTGCTTTGATTCAACTTTTGACGCTCTGGAGGGCCAAATTAATCAACCAGTACCCTCATGTACTATTG  
TATGAAAAGGCCTTTAAGCTCTCTGAATACGGCTATGCCAACACAATGGGTGTTATCTTGGCAGTCATGATTGCAATCATCAGCTTTGCTCAATTT  
AAAATTTTAGGTAATGATGTGGAATAT

## SEQ ID 942

VFLTSGFFSMHMSNGHWKEAFLFRKVEQKEVFQVNVNKLKMETLISYAFLAPVLVFFVIFVLIPMIMGFVTSFFNYSMTETFTVGFANYARMFQ  
DPIFMKSLINTLIIVIGSVPVVVFSLFVAAKTYDKNVARSFYRAVFFLPVTVGSVAVTVVWKWIYDPM SGILNYLVKYAHVIEQNISWLGDKHW  
ALLAI IIVILLTTSVGQPI ILYIAAMGNIDNSLVEAARVDGATEFQVFNWKWPSLLPTTLYIAVITTTINSFQCFALIQLLTS GGPNYSTL MYLY  
YEKAFKLSEYGYANTMGVFLAVMLAISFAQFKILGNDVEY

## SEQ ID 943

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AAGGCTTTTGAAGAAAAATCCTAATATAAAGTAAACTAGAGACAATTGATTTCACATCTGGACCTGAAAAAATCACTACAGCGATTGAAGCA  
GGGACAGCACCTGATGTGCTTTTGTATGACACAGGGCGAATTATCAATATGGTAAAAATGGTAAATTAGCAGATTGGAATGATTATTATACAGAC  
CAATTTATTAAGGATGTCAATAATAAGATATCATTCAAGCTTCTAAGTCTGGCGATAAAGCCTACATGTATCCAATAAGTTCTGCCCATTTTAT  
ATGGCGTTCAATAAAAAATGCTTAAAGATGCAAGGATTTTGAACCTCGTAAAGAGGTTGGACTACTAGTGATTTTGAAGAACTACTAAAGCA  
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CAATATTATTCACCATATTACAACACTATCGATGGATTTTCTGAAATGAGAACCTTATGGTTCCTCAATGGTTCAATCTGTATCCAATGGTGACGAA  
AAACCAGCAGATGCTTTGAAAGACTTACTCAAAAAGCAAATGATACCATTAAAAAGCAGCTAAA

## SEQ ID 944



MSIKKSVIGFCLGAAALSMFACVDSSQSVMAAEKDKVEITWWAFPTTQBEKAKDVGVTYEKKVIAFEKKNPNIKVKLETIDFTSGPEKITTAIEA  
GTAPDVLFDAPGRI IQYKNGKLADLNDLFTDQFIKDVNNKNI IQASKSGDKAYMYPISSAPFYMAFNKMKLKDAGVLKLVKEGWTTSDFEKVLKA  
LKNKGYPGSGFFANGQGGDQGPRAFFANLYSAPITDKEVTKYTTDTKNSVKSMKKIVIEWIKKGYLMNGSQYDGSADI QNFANGQTAFITLWAPAQ  
KTQAKLLESSKVDYLEVPFSPEDGKPDLEYLVNGFAVFNKNKDNKVKASKFITFIADDDKKWGPKNVIRTGAFPVRTSFGDLKGDKRMMKISKWT  
QYSPYNTIDGFSMRLLWFPVQSVNSGDEKPADALKDFTQKANDTIKKA

## SEQ ID 945

ATGAACATGAAGAAGTTAGCTTCATTAGCGATGCTTGGTGATCTGTTTTAGGACTAGCAGCTTGTGGCGGAAAGAGCCAGAAAGAGGCTGGTGCA  
AGTAAATCTGATACTGCTAAGACAGAAATCACATGGTGGGCTTTCCCGGCTCTTACGCAAGAAAAAGCTGAAGATGGTGTGGGAACCTATGAGAAG  
AAATGATTGCTGCCTTTGAGAAAGCTAATCCAGAAATCAAGGTAAATGGAAACCATTGATTTTACATCTGGTCCCTGAGAAAATCAAACTGCT  
ATTGAAGCTGGAACAGCTCCTGATGCTCTCTTTGATGCTCCAGGTCGTATCATTTCAATATGGTAAAAATGGGAAATTTGGCTGACTTGAATGACTTG  
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GATGTTTTAATGATGAATGGCTCTCAGTACGATGGTTCAGCTGATTTCAAACTTTGCGAATGGCCAACTTCTTTTACCATTCTTTGGGCGCCT  
GCACAACAGGCTCAAGCTAAATTTGTTAGAAGCTAGTAAAGTGGATTACCTTGAAATCCCATTCCCATCAGATGATGGCAAACAGAACTAGAA  
TACCTCGTAAATGGTTTTGCGGCTTTAATAACAAGGATGAACAAAAGCTGCTGCTCTAAGACATTTATCCATTTCTGATGATGATAAGGAA  
TGGGACCTTAAATATGCTGTTGCTGATGCTTCCCTGTAAGAACTCTTATGGGGATCTTTACAAAGACAAACGAATGGAAGAAATTTGCTGAA  
TGGACAAATTTCTACTCACCATACTATAACACGATGATGGGTTTCTGTAATGAGAATCTTTGTTTCCCAATGGTTCAAGCCGCTCTCTAATGGT  
GATGAAAAGCCAGAAGATGCTTTGAAAGCCTTCACTGAAAAGCAAAACAAGACAATCAAAAAACACAA

## SEQ ID 946

MNMKKLASLAMLGASVLGLAACGGKSQKEAGASKSDTAKEITWWAFVPTQBEKEDVGVTYEKKLIAFEKANPEIKVKLETIDFTSGPEKITTA  
IEAGTAPDVLFDAPGRI IQYKNGKLADLNDLFTTEFTKDVNNDKLIQASKAGDTAYMYPISSAPFYMALNKKMKLDAGVLDLVKEGWTTDDFEKV  
LKALDKGVNPGSFFANGQGGDQGPRAFFANLYSSHITDDKVTKYTTDDANSIKAMTKISNWKDGLMMNGSQYDGSADI QNFANGQTSFTILWAP  
AQPGIQAKLLEASKVDYLEIPFSPDDGKPELEYLVNGFAVFNKNKDEQKVAASKTFIQFIADDDKEWGPKNVVRTGAFPVRTSYGDLKDKRMEKIAE  
WTKFSPYNTIDGFAEMRLLWFPVQAVSNGDEKPEDALKAFTEKANKTIKKTQ

## SEQ ID 947

ATGCCACATCTAAGTAAAGAAGCTTTTAAAAAGCAAATAAAAAATGGCATTATTGTGTCTGTCAAGCTTTGCCCGGGGAGCCTCTTTTACTGAA  
AGTGGAGGTGTTATGCCTCTTTTAGCTTTGGCAGCTCAAGAAGCAGGAGCGGTTGGTATAAGAGCCAATAGTGTCCGCGACATTAAAGAAATTCAA  
GAGGTTACTAATTTACCTATCATCGGCATTATTAAACGTGAATATCTCCCAAGAACCATTATCACTGCTACGATGACAGAGTGGATCAATTA  
GCTAGTTTGTAGATTTGCAAGTAATAGCTTTAGATTGTACACTTAGAGAGCGTCATGATGGTTTGAGTGTAGTTGAGTTTATCAAAGATAAAAAAGG  
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TCTGGATACACAGATTACAGCGCCCAAGAAGAGGACCGGATATAGAATCTCTTAATAAGCTCTGTCAAGCGGTATAGATGTGATTGCGGAAGGT  
AAAATTCATACTCCTAAGCAGGCTAATGAAATTAATCATATAGGTGTTGCAGGAATTGTAGTTGGTGGTGCTATCACTAGACCAAAAGAAATAGCG  
GAGCGTTTCATCTCAGGACTTAGT

## SEQ ID 948

MPHLSKEAFKKQIKNGIIVSCQALPGEPLYTESGGVMPLLALAAQEAGAVGIRANSVRDIKEIQEVTNLPIIGI IKREYPPQEPFITATMTEVDQL  
ASLDIAVIALDCTLRERHDLGVVEFIQIKIRKYPEQLLMADISTFEEGKNAFEAGVDFVGTTLGTYDYSRQEEGPDIELNLKLCQAGIDVIAEG  
KIHTPKQANEINHIGVAGIVVGGAITRPKEIAERFISGLS

## SEQ ID 949

ATGCTGATAAAACCAACCAAGAAAAGCTCATGGAGCAGTTAAAGGGTGGGATTATCGTTTCTTGTGAGGCTTTGCCAGGTGAGCCTCTCTATTCA  
GAGACTGGGGGTATTATGCCACTGATGGCAAAAGCTGCTCAAGAAGCTGGTGTCTGCGGCATCAGAGCTAATTCGGTTAGAGACATTAAGAAATTC  
CAAGCCATAACAGACCTACCAATTATCGGTATCATCAAAAAGATTACCCGCGCAGAGCCTTTTATTACGCAACAGATGACCGAAGTGGATCAA  
TTAGCTGCCCTTAAATATTGCGAGTGATGCTATGGATTGTACCAAGCGTGACCGACATGATGGCTTGGATATTGCTAGCTTTATTTCGACAAGTTAAG  
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TTGTGAGGCTACACCCCGTATAGCCGTGAGGAAGCAGGTCTGATGTGGCATTGATAGAAGCTCTTTGCAAGCAGGCTATGCTGTCTATTGCCGAA  
GGAAAGATTCAATCCCAGAGAAGCAAGAAAATTAATGACTTAGGTGTGGCAGGTATTGTTGTTGGAGGGGCCATCACAAGGCCTAAGGAAAT  
GCAGAGCGTTTTATCGAAGCGCTCAAATCC

## SEQ ID 950

MPDKPTKEKLMQLKGGIIVSCQALPGEPLYSETGGIMPLMAKAAQEAGAVGIRANSVRDIKEIQAITDLPIIGI IKKDYPPQEPFITATMTEVDQ  
LAALNIAVIAIDCTKRDRHDLGDIASFIQVKEKYPQLLMADISTFDEGLVAHQAGIDFVGTTLGTYTPYSRQEGPFDVIAIEALCKAGIAVIAE  
GKIHSPEEAKKINDLVAGIVVGGAITRPKEIAERFIEALKS

## SEQ ID 951

ATGAAATGAATAAAAAAGTACTATTGACATCGACAATGGCAGCTTCGCTATTATCAGTCGCAAGTGTTCAAGCACAAGAAACAGATACGACGTGG  
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TCAGAAGCAATGTCAATTGATATGAATGCTTTAGCAAAAATAAATAACATTGCGAGATATCAATCTTATTTATCTGAGACAACTGACAGTAAT  
TACGATCAGAAGAGTCAATGCCACTTCAATGAAAATAGAAAACACAGCAACAAATGCTGTGGTCAAAACACAGCTACTGTGGATTGAAAAACC  
AATCAAGTTTCTGTTGCGAGACCAAAAAGTTTCTCTCAATACAATTTCCGAAGGTATGACACCAGAAGCAGCAACAACGATTTGTTTCCCAATGAAG  
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GGTGTACATGTTAAGGTTTAGCAGTTGACTTTATTTAGGTAATAATCAAGCACTGGTAATAAAGTTGACAGTACTCTACACAAAATATGGCA  
GCAAATAACATTTATATGTTATCTGGCAACAAAAGTTTACTCAAATACAAACAGTATTTATGGACCTGCTAATACTTGAATGCAATGCCAGAT  
CGTGGTGGCGTTACTGCCAACCACTATGACCAGTTACGATCATTTAACAAA

## SEQ ID 952

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YDQKSHATSMKIEPTPATNAAGQTTATVDLKTNQSVADQKVLNLTISEGMTPEAATTIVSPMKTYSSAPALKSKEVLAQEQAVSQAAANEQVSPA  
PVKSITSEVPAAKEEVKPTQTSVSQSTTVSPASVAETPAVAKVAPVRTVAAPRVASVKVVTPKVETGASPEHVSAPAVPVTTSPTATDSKLQAT  
EYKSVPAQKAPTATPAVQASTTNAVAHPENAGLQPHVAAYKEKVASTYGVNEFSTYRAGDPGDHKGGLAVDFIVGTNQAALGNKVAQYSTQNM  
ANNISYVIWQKQFYSNTNSIYGPAANTWNAMPDRGGVTANHYDHVHVSFNK

## SEQ ID 953

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AGTGTCTGCAACCTCAAAATGGCCCTTCTTACGCTCCAACCACTGCTTACAATCCAAATGAATGCAGGGCTTCAACCAACACAGCAGCTTCAAGAA  
GAAGTGGCTTCTGCTTTGGTATTACGTCATTTAGTGGTTACCGTCCAGGTGATCCAGGAGATCATGGTAAAGGTTTGGCCATTGATTTTATGGTG  
CCTGAAAATTCTGCTCTTGGTGATCAAGTTGCTCAATATGCCATTGACCATATGGCAGAGCGTGGTATTTTATACGTTATTTGGAAACAGCGATT  
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GTCTCCTTTAATGCT

## SEQ ID 954

MIITKKSIFVTSVALSLVPLATAQAQEWTPRSVTEIKSELVLVDNVFTYTVKYGDTLSTIAEAMGIDVHVLGDIINHIANIDLIFFPDILTANYNQH  
GQATNLTVQAPASSPASVSHVPSSEPLQASATSQPTVPMAPPATPSDVPTTFASAKPDSSVTASSELTSSTNDVSTELSESQKQPEVPQAVP  
TPKAAETTEVEPKTDISEAPTSANRPVPNESASEEVSSAAPAQAPAEKEETSAPAAQKAVADTTSVATSNGLSYAPNHAYNPMNAGLQPPQTAAFKE  
EVASAFGITSFSGYRPGDPGDHKGGLAIDFMVPENSALGDQVAQYAI DHMAERGISVYIWKQRFYAPFASIYGPAYTWNPMFDRGSI TENHYDHH  
VSFNA

## SEQ ID 955

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GTGGCAGATGGTACTGTGAAATTTGCAGGAGCTGGAGCCAACTTTTCTGGATGACAGACTTAGCAGGAAATTTGTGTCATGATTCAACATGCGGAT  
GGAATGCATAGTGGTTACGCTCATATGTCACGTGTGGTGGCTAGGACTGGGGAAAAAGTCAAAACAAGGAGATATCATCGGTTACGTAGGAGCAACT  
GGTATGGCGACGGGACCTCACCTTCATTTTGAATTTTACCAGCTAACCCCTAATTTTCAAAATGGTTTCCATGGACGTATCAATCCAACGCTACTA  
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AATGGTATACCAGCATCAGAAATTGATGAGGTTGATGCTAATGGTAAATTTGACAGCTGACCAGGTTCTTCAAAAAGTGGTTACTTTATCTTTAAT  
CCTAAACTCTTAAGACTGTAGAAAAACCCATCCAAGGAACAGCTGGTTAACTTGGGCTAAGACACGCTTTGCTAATGGTAGTTTCAAGTTTGGCTT  
CGGTTGACAACAGTCAAGAAGCTGCTTTACAAA

## SEQ ID 956

MNKWLKASSLVVLGGMVLSAGSRVLADTYVRPIDNGRITTFNGYPGHCGVDYAVPTGTIIRAVADGTVKFAGAGANFSWMTDLAGNCVMIQHAD  
GMHSGYAHMSRVVARTGEKVKGDIIGYVGATGMATGPHLHFEFLPANPNFQNGFHGRINPTSLIANVATFSGKTQASAPSIKPLQSAAPVQNGSSK  
LKVYRVDELQKVNQVWLVKNNLTPTGFDWNDNGIPASEIDEVDANGNLADQVLQKGGYFI FNPKLTKEKPIQGTAGLTWAKTRFANGSSVWL  
RVDNSQELLYK

## SEQ ID 957

ATGACTAAACGCTGCTTTAATCTCAGTTTCTGACAAATCAGGAATTATTGACTTTGCAAAAGAATTGAAAAACTTGGGTTGGGATATTATCTCAACT  
GGTGGGACTAAGGTTGCCCTTGATGATGCTGGTGTGAGACCATGGCCATGACGATGTGACTGGATTCCAGAAATGATGGACGGTCTGTTAAG  
ACCTCCACCCCAACATTTACCGTGGGCTTCTGGCTCGTCGCGACGCTGACAGCCACCTTCAGGCTGCTAAGGACAACAATATGAGTTGATGAC  
CTCGTGGTTGTCAACCTCTATCCCTTCAAGGAGACCATCTTCGCCCCAGACGTGACCTACGATTTGGCGGTGGAATAATGACATCGGCGGCTCCA  
TCAATGCTTCGCTCAGCTGCTAAAAACACGCTAGCGTAACCGTTTGGGTTGATTACGCTGACTATGCCACTGTTTTGGGAGAATTGGCTGACGCT  
AGTCAGACGACATTTAAAACTCGTCAACGCTTGGCAGCTAAGGCTTCCGCTCATACGCGAGCTACGACGCTTTGATTTGCTGAGTACTTCAAGCT  
CAAGTGGGAGAGGCTAAGCCTGAAAAATTGACCATCATCTTATGACCTTAAACAGGCTATGCGTTACGGAGAAAAATCCACAGCAAGACGCTGATTT  
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GCAATCCGTATTATCCGCGATTTCAAAGACAGTCCAAACGGTTGTTGGCTTCAACACATGAACCCATGTGGTATCGGACAGGCTGATGATATTGAG  
ACAGCTTGGGATTACGCTTATGAAGCTGATCCAGTTTCAATCTTTGGTGGAAATTGTTGCTCTTAACCGTGAAGTTGACGCGAGCGACAGCTGAGAAG  
ATGACACCTATCTTCTTGGAAATCATCATCGACCATCATATCTCAGAAGAAGCGCTAGCTATTTCTCAAAATAAAAAAGAAAACTTGGCTATCTCT  
GAGTTGCGGTTTGTATGCCCAAGCTGCCAGCGAAGTGAAGCTGAGTACACTGGCGGTAGTTGGTGGACTTTTGGTGCAAAACCAAGACGCTTGGCT  
GAAAATCCATCTGACTGGCAAGTGGTGACAGACCGCCAGCCAACAGAACAGAGGCGACTGCCCTTGAGTTTGCCTGGAAGGCTATCAAGTATGTT  
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CAGGCTAAGGACCAACCTTGACGGTGGCTTCTAGCATCAGATGCCTTCTTCCATTTGCGGACAACATTGAAGAAATCGCTGCCGCGAGGATCAAA  
GCAATCATCCAACAGGTGGTTGAGTTCAGTTGACCAAGAATCTATTGACGCGCAACCAACATGGCTTGACCATGATCTTCAACAGCGTGAGACAT  
TTTAGACAT

## SEQ ID 958

MTKRALISVSDKSGIIDFAKELKNLWDIIISTGGTKVALDDAGVETIAIDVTFPEMMDGRVKTLPNINHGLLARRDADSHLQAAKDNINIELID  
LVVVNLVFPFKETILRPDVITYDLAVENIDIGGPSMLRSAAKNHASVTVVDSADYATVLGELADASQTFKTRQLRAAKAFRHTAAYDALIABYFTA  
QVGEAKPEKLTITYDLKQAMRYGENPQDADFYQKALPTDYSIASAKQLNGKELSFNNIRDADAIRIIRDFKDSPTVVALKHMNPGIGQADDIE  
TAWDYAYEADPVSIFGGIVLVNREVDAAAEKMHPIFLEIIIPSYSEELAILTNKKNLRIELPFDQAASEVEAEYTGUVGGLLVQNQDVVA  
ENPSDWQVVTDRQPTQEATALEFAWKAIKYVKSNGIIITNDHMTLGLGAGQTNRVGSVKIAIEQAKDHLGAVLASDAFFPFADNIEEIAAGIK  
AIIQPGGSVRDQESIDAANKHGLTMIPTGVRHFRH

## SEQ ID 959

ATGACTAAACGCTGCTTTAATCTCAGTGTCTGACAAAGTCAAGGAATTGTTGACTTTGCAAAAGAATTGAAAAACTTGGGTTGGGATATTATCTCAACT  
GGTGGGACTAAGGTTACCTTTGACGATGCTGGTGTGAGACCATGGCCATGACGATGTGACTAGATTCCAGAGATGATGGACGGTCTGTTAAG  
ACCTCCACCCCAACATTTACCGTGGGCTTTTGGCTCGTCGCGACGCTGACAGCCACCTTCAGGCTGCTAAGGACAACAATATCGAGCTGATGAC  
CTCGTGGTTGTCAACCTCTATCCCTTCAAGGAGACTATCTTCTGCTCAACACATGACCTATGATTTGGCGGTGGAATAATCGCTGATGCGGCTCCA  
TCAATGCTTCGCTCAGCGCTAAAAATCAGCTAGCGTGACCGTTTGGTGTGACCCAGCGGATTATGCGACTGTTTTGGGAGAATTGGCTGACGCT  
GGTCAAGCAGCATTTGAAACGCGCTCAACGCTTGGCAGCTAAGGCTTTCGTCACACAGCAGCTACGACGCTTTGATTTGCTGAGTACTTCAACAT  
CAAGTGGGAGAGGCTAAGCTGAAAAATTAAACCATCACTTACGACCTTAAACAGGCTATGCGTTACGGAGAAAAATCCACAACAAGACGCTGATTT  
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ATGACCCCTATCTTCTTGGAAATCATCATCGACCATCATACTCAGAAGAAGCGCTAGCTATTTCTCAAAATAAAAAAGAAAACTTGGGAATCTGCT  
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GAAAATCCATCTGACTGGCAAGTGGTGACAGACCGCCAAACCAAGAACAGAGGCGACTGCCCTTGAGTTTGCCTGGAAGGCTATCAAGTATGTT  
AAGTCTAACGGGATTATTATTACTAACGATCATATGACGCTTGGACTCGGTGACAGTCAAAACCAACCGTGTGCGGCTCAGTCAAGATTGCTATCGAG  
CAGGCTAAAGACCACCTTGACGGTGGCTTCTAGCATCAGATGCCTTCTTCCATTTGCGGACAACATTGAAGAAATCGCTGCCGCGAGGATCAAA

GCAATCATCCAACAGGTGGTTTCAGTTCGTGACCAAGACTCTATTGACGCCGCAAAACAAACATGGCTTGACCATGATCTTCACAGGTGTGAGACAT  
TTTAGGCAT

## SEQ ID 960

MTKRALISVSDKSGIVDFAKELKNLWDIISTGGTKVTLDDAGVETIAIDDVTRFPEMMDGRVKTLPHPNIHGGLLARRDADSHLQAOKDNIELID  
LVVVNLYPFKETTILRPDITYDLAVENIDIGGPSMLRSLAANKHASVTVVDPADYATVLGELADAGQTTFETRQRLAAKVFRHTAAYDALIAEYFTT  
QVGEAKPEKLTTITYDLQAMRYGENPQQDADFYQKALPTDYSIASAKQLNGKELSFNNIRDADAAIRIIRDFKDRPTVVALKHMNPGCIGQADDIE  
TAWDYTYKADPVSIFFGGIIVLNREVDAATAKKMHPIFLEIIIIAPSYSEALAILTNKKKNLRILELPFDAQAASEVEAEYTGUVGGLLVQONQDVVA  
ENPSDWQVVTDROFTEQEALEFAWKAIKYVKSNGIIITNDHMTLGLGAGQTNRVGSVKIAIEQAKDHLGDGAVLASDAFFPFADNIBETIAAAGIK  
AIIQPGGSVRDQDSIDAANKHGLTMIFTGVRHFRH

## SEQ ID 961

ATGAAACTAGTGAATAATTTAGAGATAGTAGAGTCTATTTTGGTGATGGGACGAGACCATAATCTGGTCTGTGTCCAAGGTATTATTGGGAGAA  
GTTTTTGTAGATAGTTTACACCAACCAAAATCTTCTTTGGCAAAATGGGAAGGAAATCATCTTTTGGTTTTCTAGCAGGTACAGCTACTTTATTT  
CTACTAGAAGTTTGGCTCTGGGGAGGATATATCTTGTCTCCTCAGCATAAAGGATGGTCAGATTGTGAATCAACTTATGGTCAGAAATGCTCAT  
TCTTTTAAAGCGTTATGCGACGAAAAAGATACTTTGTTTGGAGCAAGTAGGTTAGAGAAGTTTGTACTCAGTTGCCAAATGGTTTGAATTACGCT  
GCTATTGATGAGAAAGTTTCAACTCTTGTCTTAGAAAAGGAATGGTCACAGGATTTAGTAGCAAAATTACGCTACTTATCAGTACTATAAAAAACAA  
GGTATAGGTTATGTTGATATATTATCAGGGGAATATCATTTGCAGGAGCTTCATCTTATTTCAACCTATAAAAAATGGGATTGAGATAGAAGTAGATACG  
CATCCAGATTTTCTGTCGGCGTGGTTTAGCAACAATAGTTGCAGCTCAGTTAATACTAAGTTTGTAGATAAGGAATTTATCTTAGCTGGGATGCT  
CATACAAGGACTTCATTGAATTTATCTGAAAACTCGGTTATGAATTTTCTCATGAATACATAGCCTATGAAATAGAT

## SEQ ID 962

MKLVKNLIEVESIFGDWDETIISVSCVQIMGEVFDVSLDQPKSSSLAKLGRKSSFFGFLAQPTLFLLEVCSGEDIILVPOHKGWSDLIESTYGGQNAH  
SFKRYATKKDITLFERSRLEKFVTLQPNFELRAIDEKVNSCLEKEWSQDLVANYATYQYKKQGGIGYVVYQGNIIAGASSYSTYKNGIEIEVDIT  
HPDFRRRLATTIVAAQLILTCLDKGIYPSWDAHTRTSLNLSEKLGVEFSHEYIAYEID

## SEQ ID 963

ATGAAATCGCTGTTTTTGTCTTCTGGTAATGGTTCCAACCTTTCAGGTCATAGCAGAGCAGTTTCAAGTTAGTTTTGTCTTTTCAGATCATCGTGAT  
GCCTATGTTTTAGAGCGTGCTCAGAACTTAGCCATTCCAAGCTTCGCTTTTGAACCTCAAGAGTTTGAGAATAAGGCGGCTTACGAGCAAGCCGCTC  
GTTGATTTGTTGGACAAACACGAGATTGACTTGGTCTGTCTGGCGGGCTACATGAAGATTGTCGGAGAAACCTTGTCTCAGCCTATGAAGGGCGT  
ATCATCAATATTCAACCAACCTATCTGCTGAATTTCCAGGTGCTCAGGATATCAAGGATGCTTGGGAGGCAAGGTGTTGACCAAGTCTGGTGTGACC  
ATCCATTGGGTGGAATCTGGTGTGGATACCGGTCAGGTCATCCAACAAGTGACGTCGCCACGCTAGCAGATGATAGTCTAGAAAGCTTTGAAACC  
CGCATCCACGAAACCGAATACCAACTCTACCCAGCTGTCTTAGATAGCTTGGGCATAAAGAGAAAA

## SEQ ID 964

MKIAVFASNGNSNFQVIAEQFQVSFVSDHRDAYVLERQNLAIIPSAFELKEFENKAAYEQAVVDLLDKHEIDLVLCLAGYMKIVGETLLSAYEGR  
IINIHPYLYPEFPGAHGKIDAWBAGVDQSGVTIHWVDSGVDTGQVIQVHVPRLADDSLESFETRIHETEQYLYPAVLDLGLIKRK

## SEQ ID 965

ATGAAATCGCTGTTTTTGTCTTCTGGTAATGGTTCCAACCTTTCAGGTCATAGCAGAGCAGTTTCCAGTTAGTTTTGTCTTTTCAGATCATCGTGAT  
GCCTATGTTTTAGAGCGTGCTCAGAACTTAGCCATTCCAAGCTTCGCTTTTGAACCTCAAGAGTTTGAGAATAAGGCGGCTTACGAGCAAGCCATC  
GTTGATTTGTTGGACAAACACGAGATTGACTTGTCTGTCTGGCAGGCTATATGAAGATTGTTGGAGAAACCTTACTCTTGGCCTATGAGAGGCGT  
ATTATCAATATTCAACCCAGCCTACCTGCCTGAATTTCCAGGTGCCACGGTATCGAGGATGCTTGGGAAGCTGGTGTGACCAAGTCTGGCGTGACC  
ATCCACTGGGTGACTCTGGTGTGGATACCGGTCAGGTCATCCAACAAGTGCGCGTGCCACGCTAGCAGACGATAGCCTAGAAAGCTTTGAAACC  
CGTATCCATGAACCGAATATCAACTCTACCCAGCTGTCTTAGATAGCTTGGGAGTGGAGAGGAAAGTAATC

## SEQ ID 966

MKIAVFASNGNSNFQVIAEQFQVSFVSDHRDAYVLERQNLAIIPSAFELKEFENKVAEQAVVDLLDKHEIDLVLCLAGYMKIVGETLLLAYERR  
IINIHPAYLYPEFPGAHGKIDAWBAGVDQSGVTIHWVDSGVDTGQVIQVHVPRLADDSLESFETRIHETEQYLYPAVLDLGLVERKVI

## SEQ ID 967

ATGCTCGAAAAAATGCTTATGCCAGCTCTGGTGTGATGTAGAAGCGGGCTACGAAGTTGTGCAACGTATCAAGAAACAGTTGCTCGCACAGAA  
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GGTGTGCGAACTAACTCATGCTTGCTATCAAGTACGACAAGCAGCACACAATCGGTCAAGACTGTGTGGCATGTGTGTCAACGATATTATTGCA  
GCAGGTGCTGAGCCCCCTTACTTCTTGAATATGTCGCGACTGGTAAAAACGAACCTGCCAAATGGAACAGGTTGTCTGCTGGTGTGCTGAAGGT  
TGTGTTCAAGCTAGCGCAGCTCTTATCGGTGGTGAACCGGTGAGATGCTTGGTATGATGCGCAAGATGATTATGACCTTGCAGGCTTTGCTGTT  
GGTGTGGCTGAAAAATGTTCAAAATCATCGACGGTTCAAAGGTAAAAAGAGGCGATATTCTTCTTGGACTTGCTTCAAGTGGTATCCATTCAAAATGGT  
TATTCTTGGTACGTCGTGTCTTTGCTGACTACACTGGTGTGATGAGGTGCTTCCAGAGCTTGAAGGCAAACTCAAGGATGTCTTCTTGGACCA  
ACTCGTATCTATGTTAAAGCAGCTCTGCCATTGATCAAGGAAGAACTAGTTAAAGGATTCGCCACATCACGGGTGGTGGTTTATCGAGAATGTT  
CCTCGTATGTTTGGCGATGATTGGCTGCGGAAATCGATGAGGACAAGGTGCGCTGACTTCCGATTTTCAAGGCGCTTAAAAATATGGTGACATC  
AAGCAGGAAGAAATGTTTGAATCTTCAATATGGGTCTGGTCTTATGCTGAGGTTTAAACCTGAAAAATGTTGACCGGTGCAAGAACTTTTGGAC  
GAACCACTCTATGAAATCGGTCTGATCATCAAGAAAGCAGACGATAGTGTGGTGATTAA

## SEQ ID 968

MSEKNAYAQSGVDVEAGYEVVERIKKHVARTERAGVMGALGGFGGMFDLSQTVKEPVLISGTDGVTGKLMMLAIKYDKHDTIGQDCVAMCVNDIIA  
AGABPLYFLDYATGKNBPALKLEQVAVGVAEGCVQASALIGGETAEMPMEYGGDDYDLAGFAVGVAEKSQIIDGSKVKEGDIILGLASSGIHSNG  
YSLVRRVFADYTGDEVLPLELEGKQLKDVILLEPTRIYVKAALPLIKEELVNGIAHITGGGFIEINVPRMFADDLAEIEDKVPVLPFIKALEKYGDI  
KHEMFELFNMVGLMLDVNPENVDVRKELLDEPVYEIGRIIKKADDSVVIK

## SEQ ID 969

ATGCTCGAAAAAATGCTTATGCCAAATCTGGTGTGATGTTGAAGCTGGTTATGAAGTGGTTGAAAGAATAAAAAACAGTTGCTCGTACAGAA  
CGTGCGGAGTCATGGGAGCTCTAGGTGGCTTTGGTGGGATGTTGACTTGTAGTAAAAACAGGAGTTAAAGAGCCTGTCTTGGTTTCAGGGACTGAC  
GGTGTGCGAACTAACTTATGCTTGCTATCAAGTACGACAAGCAGCACACAATCGGTCAAGACTGTGTGGCATGTGTGTCAATGATATTATTGCA  
GCAGGTGCTGAGCCATTATATTTTATGATTATATTGCGACAGGAAAAATAACCCAGTCAAACTTGAAGAAGTTGTTTCTGGTGTGTCAGAAAGGT  
TGTGTTCAAGCAGGAGCAGCACTCATTGGAGGTGAGACCGCTGAAATGCCGTGAAGTATGTTGTTCAAGATGATTATGACCTTGCAGGCTTTGCTGTT  
GGTGTGGCTGAAAAATGTTCAAAATCATCGACGGTTCAAAGGTAAAAAGAGGCGATATTCTTCTTGGACTTGCTTCAAGTGGTATCCATTCAAAAGGT  
TATTCTTGGTACGTCGTGTCTTTGCTGACTATACTGGTAAAGAGCTGCTTCCAGAGCTTGAAGGCAAACTCAAGGATGTCTTCTTGGACCA  
ACTCGTATCTATGTTAAAGCAGCTCTGCCATTGATCAAGGAAGAACTAGTTAAAGGATTCGCCACATCACGGGTGGTGGTTTATCGAGAATGTT  
CCTCGTATGTTTGGCGATGATTGGCTGCGGAAATCGATGAGGACAAGGTGCGCTGACTTCCGATTTTCAAGGCGCTTAAAAATATGGTGACATC  
AAGCAGGAAGAAATGTTTGAATCTTCAATATGGGTCTGGTCTTATGCTGAGGTTTAAACCTGAAAAATGTTGACCGGTGCAAGAACTTTTGGAT  
GAACCACTTATGAAATCGGTCTGATCATCAAGAAAGCAGACGCTAGTGTGGTGATTAA

## SEQ ID 970

MSEKNAYAKSGVDVEAGYEVVERIKKHVARTERAGVMGALGGFGGMFDLSKTGVPVLSGTDGVTGKLMMLAIKYDKHDTIGQDCVAMCVNDIIA  
AGABPLYFLDYATGKNBPVKLEEVVSGVAEGCVQAGALIGGETAEMPMEYGGDDYDLAGFAVGVAEKSQIIDGSKVKEGDIILGLASSGIHSNG



YSLVRRVFADYTGKELLPELEGKQLKDVLEPTRYVKAALPLIKEELVKGIGHITGGGFIEINIPRMFADDLAEIEDKVPVLPFIFKALEKYGDI  
KHEEMFEIINMVGVLMLAVSPENVNRVKELLDEPVYIEIGRIKKADASVVIK

## SEQ ID 971

ATGACATACGAAGTAAAACTCTAAATGAAGAATGTGGAGTCTTTGGTATCTGGGGGTATCCTCAGGCAGCTCAAGTCACCTTACTTTGGGCTTCAT  
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TTTAAAGATCAATCTGAATTAGATAATTTAACTGGGAATGCGGCTATTGGACATGTTCCGGTATGCTACTGCAGGTTCTGCAGATATTCGCAATATT  
CAGCCTTTTCTTTATAAATTTTCATGATGGGCAATTTGCTTTATGTCATATGGTAATTTGACAAATGCTATTTCTCAAGGAAAGAATTAGAAAAG  
CAAGGTGCAATTTTCAATGCCTCCTCAGATACTGAAATTTTAAATGCATTTGATTCGTCGAAGCCATAACCCAAGTTTATGGGGAAGGTAAAAAGAA  
GCTTTAAGCACTGTAAAGGAGGTTTCGCCTATCTACTGATGACAGAAAGATAAATTAATTTGCTGCTCTTGACCCCTAATGCCCTTTCGCTGTTGTTCA  
ATTGGACAAATGCAAAATGGTGCCTGGGTTATTTCCAGTGAGACCTGTGCTTTTGGAGTGGTAGGCGCAAAATGGGTTAGAGATGTTGAACCTGGT  
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AGGCCGATTTCAACTATACATGGTGTAAATGTTTCATACGGCTCGAAAAAATGGGAAAGCGTCTGCACAAGAAATTTAAACAGGATGCTGATATT  
GTAATTTGGTGTCCCAAAATTCGTCCTTATCGGCTGCTATCGGCTTCTGCTGAAGAATCCGGATTACCAAAATGAGATGGGCTTGTAAAAAATCAGTAT  
ACGCAGCGAACCTTTATTCAACCGACACAAGAATTAAGGGAACAAGGTGTTGCAATGAAATTATCAGCGGTATCTGGTGTGTCAAAGGAAAGCGC  
GTTGTTATGATTGATGACTCAATTTGTAAGGGAACGACTTCTAGAAGGATTGTAGGATTATTAAGAGAAGCAGGAGCTACTGAAGTACATGTTGCT  
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TGATGATTATTTGGCGCAGATAGTCTAACTTATCTCAATCATGATGGTGTGTTGAAATCAATTTGGAATCGAAACAAAGCAATTTGCTGTTA  
TGCGTAGCTTACTTTGATGGACATTATCCAACACCGCTTTATGATTATGAAGAAGAATACCTCAGAAGTTTAGAAGAAAAACAAGTTTTATATT  
CAAAAAGTGAAA

## SEQ ID 972

MTYEVKSLNEECGVFGIWIYQAAQVTFYGLHSLQHRGQEGAGIISNDNGKLYGYRNVGLLSEVFNQSELDNLGNAAIGHVRYATAGSADIRNI  
QPFYLFKFDGQFALCHNGNLTAISSRKELEKQGAIFNASSDTEILMHLIRRSNPSFMGKVKEALSTVKGGFAYLLMTEDKLI AALDPNAPRPLS  
IGQMONGAWVISSETCAFEVVGAKWVRDVEPGEVILIDDSGIQCDRYTDETLALCSMEYVYFARPDSTIHGVNVHTARKNMGKRLAQEFKQDADI  
VIGVPNSSLSAAMGFAEESGLPNEMGLVKNQYQRTFTIQTQELREBQGVKMLSAVSGVVGKRVVMIDDSIVRGTTSSRIVGLLREAGATEVHVA  
IASPELKYPCFYGIDIQTRRELISANHADEVCDIIGADSLTYLSIDGLIKSIGLETKAPNGGLCVAYFDGHYPTPLYDYEEYELRSLBEKTSFYI  
QKVK

## SEQ ID 973

TTGTGCGAAAACTTTCTATTTTCGCTTTACTTGACAGCCTTTGTATCAGAGTAAAAATGACATACGAAGTAAAACTCTAAATGAAGAATGTGGA  
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TCAAATGACAAATGGGAACTCTATGGTTATCGAAATGTTGGGCTCCTTTCTGAAGTTTAAAGAATCAATCTGAATTAGATAATTTAACTGGGAAT  
GCGGCTATTGGACATGTTCCGGTATGCTACTGCAGGTTCTGCAGATATTCGCAATATTCAGCCTTTTCTTTATAAATTTTCATGACGGGCAATTTGCT  
TTATGCCAATATGGTAATTTGACAAATGCTATTTCTTAAAGGAAAGAATTAGAAAAGCAAGGTGCAATTTTCAATGCCTCCTCAGATACTGAAATTT  
TTGATGCACTTGATTGCTCGAAGCCATAACTCAAGTTTCATGGGAAAGGTAAGAAGCTCTAAATACAGTAAAGGGTGGCTTTGCCTATCTACTG  
ATGACAGAAAAATAAATCATTTGCTGCTCTTGACCTTAATGCCTTTCTGCTTTTGTCAATTGGACAAATGCAAAATGGTGGCTGGGTTATTTCCTAG  
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GCTCGAAAAAATATGGGAAAGCGTCTTGACAGAAGAAATTTAAACAGGATGCTGATATTGTAATTTGGTGTCCCAATTTCTGCTTATCGGCTGCTATG  
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GAACAAGGTGTTGCAATGAACTATCAGCGGTATCCGGTGTGTTGTCAAAGGAAAGCGCGTGTGTTATGATTGATGACTCAATTTGAAGAGGAAAGGACT  
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ATTGATATTTCAGACTCGTCGTGAGTTGATTTCAGCCAATCACTCTGTTGATGAAGTGTGTTGATATTATTGGCGCAGATAGTCTGACCTATCTCTCA  
CTGGATGGGTTGATTGCAATTTGGAATCGAAACAAAGCAACCAATTTGATGGTGTGTTGATGCTAGCTTACTTTGATGGGCATTATCCAACACCGCTT  
TATGATTATGAAGAAGATACCTCAGAAGTTTAGAAGAGAAAAACAAGTTTTATATTCAAAAAGTGAAA

## SEQ ID 974

LCEKLSIFALLDSLCEIEVKMTYEVKSLNEECGVFGIWIYQAAQVTFYGLHSLQHRGQEGAGIISNDNGKLYGYRNVGLLSEVFNQSELDNLGN  
AAIGHVRYATAGSADIRNIQPFYLFKFDGQFALCHNGNLTAISSRKELEKQGAIFNASSDTEILMHLIRRSNPSFMGKVKEALNTVKGGFAYLL  
MTENKLI AALDPNAPRPLS IGQMONGAWVISSETCAFEVVGAKWVRDVEPGEVILIDDRGIQCDRYTDETLALCSMEYVYFARPDSTIHGVNVHT  
ARKNMGKRLAQEFKQDADIVIGVPNSSLSAAMGFAEESGLPNEMGLVKNQYQRTFTIQTQELREBQGVKMLSAVSGVVGKRVVMIDDSIVRGTT  
SRIIVGLLREAGASEVHVAIASPELKYPCFYGIDIQTRRELISANHSVDEVCDIIGADSLTYLSIDGLIKSIGLETKAPNGGLCVAYFDGHYPTPL  
YDYEEYELRSLBEKTSFYIQKVK

## SEQ ID 975

GTGAAGGCGAGGTTAGATAGAAATTCGCTATCTTTTGAACGAAGCGAGCTTAACCGTATCTTTCCGCCGTATTGGTATTGGGAGTCATTGAGACT  
AAGGTTCAATGGCTAGCT

## SEQ ID 976

MKARLDRNLSFSERSELNRIFFPYWYLVGVIETKVQWLA

## SEQ ID 977

TTGCGGCTGTCCGCTGTTGTACACCGAAAGCTACCAAGGTTGGTGGTACTGTCAATCTTCGAAAGTACCAGACATAGAGTCTTACCGCCGATT  
GATGGCAACCAAAAT

## SEQ ID 978

MRLSAVVTPKATKVGGTVNSSKVPDIESLPIDGKPN

## SEQ ID 979

TTGGGCTTACTGAAATCTCAATTTCAAGCTCCTCTATTTTCGAGTCTGCTCCTTGTGCGACTTGGTATCTTATATGAATAAAGCTATTTTGTGTT  
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CAGGTCTATGATGCTCTTCAATTTGGCTGAGGATTGCTGGCGCTGCTGAGAAAGCATAATTTCTCTGAGCAGGTGACAGACCGCTCTTTGACAGAA  
GCTGAAATCACTGCGGAGCTTGATAAGGTTGCCCTCTTTGGCATTGAGGCGCTTCTGCTCAATTTGACCAACGCTGCTAGTTTCGCAAGAAGCT  
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CCAACAGAAATTGAGCAATTTGGTGGAGCGCGGACTTGTATCGGTGTGCCATTCGTGACCCATTGTGAGGACGTTTATACGTTTATCAGGCTATG  
CGTATTTGAGCGCAGGAGATATCAGACTCCGATTGCGGAAACAGCTGCTGGTAAATTGCCACAAACAGGTTATTTCTAAGACTGCGGCGCAGCGC  
TATTTCTCATATGTTAACCAAATTTGGGCTTGCACAACTTATGTGCGTGTAGTACTTCCACCTGGCTTCTGATCTAAACGATGGAGCTTGGAGCT